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(54) Title: ANTIGENIC PEPTIDES, SUCH AS FOR G PROTEIN-COUPLED RECEPTORS (GPCRS), ANTIBODIES THERETO, AND SYSTEMS FOR IDENTIFYING SUCH ANTIGENIC PEPTIDES

(57) Abstract: The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems, methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known, the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies against a given GPCR are known, the present invention provides preferred antigenic peptides for producing antibodies that exhibit improved specificity, affinity or capacity to perform antibody-related actions relative to the known antibodies.

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ANTIGENIC PEPTIDES, SUCH AS FOR G PROTEIN-COUPLED RECEPTORS
(GPCRS), ANTIBODIES THERETO, AND SYSTEMS FOR IDENTIFYING SUCH
ANTIGENIC PEPTIDES

5 CROSS-REFERENCE TO RELATED APPLICATIONS

[1] The present application claims priority from United States provisional patent application No. 60/257,144, filed December 19, 2000 and presently pending.

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10 ABSTRACT

[3]

BACKGROUND

[4] G protein-coupled receptors (GPCRs) are a large group of proteins that transmit signals across cell membranes. In general terms, GPCRs function somewhat like doorbells.
15 When a molecule outside the cell contacts the GPCR (pushes the doorbell), the GPCR changes its shape and activates "G proteins" inside the cell (similar to the doorbell causing the bell to ring inside the house, which in turn causes people inside to answer the door). GPCRs are like high-security doorbells because each GPCR responds to only one specific kind of signaling molecule (called its "endogenous ligand"), kind of like a high-tech door
20 lock that responds to only one fingerprint. Part of the GPCR is located outside the cell (the "extracellular domain"), part spans the cell's membrane (the "transmembrane domain"), and part is located inside the cell (the "intracellular domain"). Thus, GPCRs are embedded in the outer membrane of a cell and recognize and bind certain signaling molecules that are present in the spaces surrounding the cell. GPCRs are used by cells to keep an eye on the cells' own
25 activity and on the environment. In organisms that have many cells, the cells use GPCRs to talk to each other.

[5] GPCRs are important to the pharmaceutical industry and other industries. For example, many drugs, including some antibody-based drugs, act by binding to specific GPCRs and initiating or inhibiting their intracellular actions, and diagnostics and therapeutics
30 based on GPCRs or on antibodies for GPCRs are becoming increasingly important.

[6] General concepts about GPCRs are discussed in more scientific terms in the following paragraphs.

[7] The GPCR superfamily has at least 250 members, Strader et al., FASEB J., 9:745-754 (1995); Strader et al., Annu. Rev. Biochem., 63:101-32 (1994). GPCRs play important

roles in diverse cellular processes including cell proliferation and differentiation, leukocyte migration in response to inflammation, gene transcription, vision (the rhodopsins), smell (the olfactory receptors), neurotransmission (muscarinic acetylcholine, dopamine, and adrenergic receptors), and hormonal response (luteinizing hormone and thyroid-stimulating hormone receptors). Strader et al., *supra*; U.S. Patent nos. 5,994,097 and 6,063,596. Many important
5 drugs produce their therapeutic actions through their interaction with GPCRs.

[8] Nucleotide and amino acid sequences for many GPCRs have been reported and can be found in public databases such as GenBank and GenPept. Generally speaking, different GPCRs show both structural and sequence similarities. The most conserved domains of
10 GPCRs are the transmembrane domains and the first two cytoplasmic loops. GPCRs range in size from under 400 to over 1000 amino acids. Coughlin, S. R., Curr. Opin. Cell Biol. 6:191-197 (1994). They contain seven hydrophobic transmembrane regions that span the cellular membrane and form a bundle of antiparallel alpha helices. McKee K.K., *supra*. The bundle of helices forming the transmembrane regions provide many structural and functional
15 features of the receptor. In most cases, the bundle of helices form a pocket that binds a signaling molecule. However, when the binding site accommodates larger molecules, the extracellular N-terminal segment or one or more of the three extracellular loops participate in binding and in subsequent induction of conformational change in the intracellular portions of the receptor. These helices are joined at their ends by three intracellular and three
20 extracellular loops. GPCRs also contain cysteine disulfide bridges between the second and third extracellular loops, an extracellular N-terminus, and a cytoplasmic or intracellular C-terminus. The N-terminus is often glycosylated, while the C-terminus is generally phosphorylated. A conserved, acidic-Arg-aromatic triplet present in the second cytoplasmic loop may interact with G Proteins. Most GPCRs contain a characteristic consensus pattern.
25 Watson, S. and S. Arkinstall, The G protein Linked Receptor Facts Book, Academic Press, San Diego, CA (1994); Bolander, F. F. Molecular Endocrinology, Academic Press, San Diego, CA (1994).

[9] Although GPCRs have many features in common, each GPCR has its own unique characteristics as well. GPCRs have varying nucleotide and amino acid sequences, and
30 varying antigenicity. GPCRs bind a diverse array of specific, extracellular signaling molecules (which can also be referred to as "ligands") including peptides, cytokines, hormones, neurotransmitters, growth factors, and specialized stimuli such as photons,

flavorants, and odorants. Identified ligands include, for example, purines, nucleotides (*e.g.*, adenosine, cAMP, NTPs), biogenic amines (*e.g.*, epinephrine, norepinephrine, dopamine, histamine, noradrenaline, serotonin), acetylcholine, peptides (*e.g.*, angiotensin, calcitonin, chemokines, corticotropin releasing factor, galanin, growth hormone releasing hormone, gastric inhibitory peptide, glucagon, neuropeptide Y, neurotensin, opioids, thrombin, secretin, somatostatin, thyrotropin releasing hormone, vasopressin, vasoactive intestinal peptide), lipids and lipid-based compounds (*e.g.*, cannabinoids, platelet activating factor), excitatory and inhibitory amino acids (*e.g.*, glutamate, GABA), ions (*e.g.*, calcium), and toxins.

[10] In general, a GPCR binds only one type of signaling molecule and GPCRs are classified according to subfamilies based upon their selectivity and specificity for a particular ligand. When the ligand for a receptor is not known, the receptor is known as an orphan receptor. The extracellular domain interacts with or binds to certain signaling molecules or ligands located outside of the cell. The binding of a ligand to the extracellular domain alters the conformation of the receptor's intracellular domain causing the activation of a G protein. The G protein then activates or inactivates a separate plasma-membrane-bound enzyme or ion channel. This chain of events alters the concentration of one or more intracellular messengers (second messengers) such as cyclic AMP (cAMP), inositol triphosphate, diacylglycerol, or Ca^{2+} . These, in turn, alter the activity of other intracellular proteins such as cAMP-dependent protein kinase and Ca^{2+} /calmodulin-dependent protein kinases, leading to the transduction and amplification of the original extracellular signal. Baldwin, J.M., Curr. Opin. Cell Biol. 6:180-190 (1994). The G protein is deactivated by hydrolysis of GTP by GTPase. U.S. Patent Nos. 5,994,097 and 6,063,596.

[11] GPCR mutations, both of the loss-of-function and of the activating variety, have been associated with numerous human diseases, Coughlin, *supra*. For example, retinitis pigmentosa may arise from either loss-of-function or activating mutations in the rhodopsin gene. Somatic activating mutations in the thyrotropin receptor cause hyperfunctioning thyroid adenomas, Parma, J. et al., Nature 365:649-651 (1993). Parma et al. indicate that it may be possible that certain G protein-coupled receptors susceptible to constitutive activation may behave as proto-oncogenes. Interestingly, GPCRs have functional homologues in human cytomegalovirus and herpesvirus, so GPCRs may have been acquired during evolution for viral pathogenesis, Strader et al., FASEB J., 9:745-754 (1995); Arvanitakis et al., Nature, 385:347-350 (1997); Murphy, Annu. Rev. Immunol. 12:593-633 (1994). The

importance of the GPCR superfamily is further highlighted by the recent discoveries that some of its family members, the chemokine receptors CXCR4/Fusin and CCR5, are co-receptors for T cell-tropic and macrophage-tropic HIV virus strains, respectively, Alkhatib et al., Science, 272:1955 (1996); Choe et al., Cell, 85:1135 (1996); Deng et al., Nature, 381:661
5 (1996); Doranz et al., Cell, 85:1149 (1996); Dragic et al., Nature, 381:667 (1996); Feng et al., Science, 272:872 (1996). It is conceivable that blocking these receptors may prevent infection by the human immunodeficiency (HIV) virus. Other GPCR-related items include regulating cellular metabolism and diagnosing, treating and preventing particular diseases associated with particular GPCRs.

10 [12] One important way to evaluate GPCRs and antibodies for GPCRs as novel drug targets and for other purposes such as diagnostics is through the creation and use of databases. Such databases can provide large amounts of information about genes, proteins, and other biological matter. An excellent example of such a database is the GPCR database created and maintained by LifeSpan BioSciences, Inc., Seattle, Washington, USA, which
15 database is available by subscription to researchers and others needing such information. The information in the databases can, for example, be searched, compared, and analyzed. The compilation of such databases, as well as the searching, comparing, etc., of the databases, can be referred to as the field of "bioinformatics." Investigations largely related to genes, such as the information found from the sequencing of the human genome, can be called "genomics"
20 while similar activities on proteins can be called "proteomics."

[13] There has gone unmet a need for improved systems, compositions, methods, and the like relating to improved antigenicity of peptides from GPCRs and antibodies relating thereto. The present invention provides these and other advantages.

SUMMARY

25 [14] The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems, methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known, the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies against a given GPCR are known, the present invention
30 provides preferred antigenic peptides for producing antibodies that exhibit improved specificity, affinity or capacity to perform antibody-related actions relative to the known

antibodies. The present invention also provides improved methods of selecting antigenic peptides from any desired protein or polypeptide, as well as antigenic peptides so produced and antibodies against such antigenic peptides.

- [15] The antigenic peptides and antibodies herein can be used, for example, to detect the presence or absence of corresponding GPCRs. They can be used to diagnose a variety of diseases and disorders in which GPCRs are involved, such as, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

[16] The association of particular GPCRs with particular diseases, disorders or conditions will be apparent to a person of ordinary skill in the art in view of the present application, and thus the association with the antibodies of the present invention to the corresponding diseases, disorders or conditions.

5 [17] Thus, in one aspect the present invention provides isolated antigenic peptides according to any one of SEQ ID NOS. 692-2292. The isolated antigenic peptides also comprise an amino acid sequences that are at least about 90% or 95% identical to such sequences, or be an analog of such sequences, or comprise a short antigenic amino acid sequence that is identical to at least 5 consecutive amino acids set forth in any one of such
10 sequences or contain no more than one conservative amino acid substitution over at least 7 consecutive amino acids set forth in any of such sequences. The present invention also provides antibodies, particularly isolated antibody having high specificity and high affinity or avidity for a particular GPCR or other target polypeptide or protein, generated using the antigenic peptides discussed herein.

15 [18] The present invention also provides isolated nucleic acid molecules encoding an antigenic peptide or antibody as described herein. The molecule can encode a naturally occurring human antigenic peptide. In some embodiments, the present invention provides processes for producing an isolated polynucleotide can comprise hybridizing a nucleotide encoding an antigenic peptide as discussed herein to DNA such as genomic DNA under
20 stringent or highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

[19] The present invention also provides kits and assays, such as kits for the detection of antibodies against a particular GPCR or other target polypeptide in a sample comprising: a) an isolated antigenic peptide as discussed herein and derived from the particular GPCR, and
25 b) at least one of a reagent or a device for detecting the antibodies, or comprising: a) an isolated antibody as described herein, and b) at least one of a reagent or a device for detecting the antibody. The assays include detection of a particular GPCR in a sample, comprising: a) providing an isolated antigenic peptide, b) contacting the isolated antigenic peptide corresponding to the particular GPCR with the sample under conditions suitable and for a
30 time sufficient for the antigenic peptide to bind to one or more antibodies specific for the target protein present in the sample, to provide an antibody-bound target protein, and c) detecting the antibody-bound antigenic peptide, and therefrom determining whether the

sample contains the particular GPCR. The assays can further comprise the step of binding the isolated antigenic peptide or the antibody to a solid substrate, and the sample can be an unpurified sample, for example from a human being.

- [20] The assay can be selected from the group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay (ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a biosensor assay, and a low-light detection assay.
- 10 [21] In other aspects, the present invention provides methods of identifying an amino acid sequence for an antigenic peptide from a candidate polypeptide sequence such as a polypeptide or protein wherein the antigenic peptide has a length of about 5 to about 100 amino acids, typically 6 amino acids to about 50 amino acids, and preferably 7 amino acids to about 20 amino acids. The methods comprise: a) searching the candidate polypeptide
15 sequence using a comparison window of the length, and b) selecting against amino acid sequences of the length and having at least 1 to 3 or 4 characteristics selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8)
20 tryptophan, and 9) at least five consecutive amino acids comprising no charged amino acids. Preferably, the method comprises selecting against at least 5 to all of the characteristics.

- [22] The methods can comprise, independently or in addition, selecting against amino acid sequences of the desired length having at least one of the following characteristics 1) sequences having at least 5 consecutive amino acids that are identical to an alternative amino
25 acid sequence from an alternative polypeptide that can be different from the candidate polypeptide, 2) posttranslational modification sites, and 3) highly hydrophobic sequences. The posttranslational modification sites can be phosphorylation or glycosylation sites. The methods can also comprise performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence.

- 30 [23] These and other aspects, features, and embodiments are set forth within this application, including the following Detailed Description and attached drawings. The present invention comprises a variety of aspects, features, and embodiments; such multiple aspects,

features, and embodiments can be combined and permuted in any desired manner. In addition, various references are set forth herein, including in the Cross-Reference To Related Applications, that discuss certain compositions, apparatus, methods, or other information; all such references are incorporated herein by reference in their entirety and for all their teachings and disclosures, regardless of where the references may appear in this application.

BRIEF DESCRIPTION OF THE DRAWING

[24] Figure 1 depicts representative examples of the nucleotide and amino acid sequences of the GPCRs for which antigenic peptides are set forth herein, SEQ ID NOS. 1 - 691.

10 [25] Figure 2 depicts amino acid sequences for the antigenic peptides for the GPCRs herein, SEQ ID NOS. 692-2292.

[26] Figure 3 depicts a listing of GPCRS for which commercially available antibodies are putatively available.

DETAILED DESCRIPTION

15 A. INTRODUCTION AND OVERVIEW

[27] Diseases such as immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases are serious health problems in the modern world. Any improvement in the diagnosis, treatment or other remediation of such diseases is a significant advance for millions of people. The present invention provides methods of identifying and selecting desirable antigenic peptides for GPCRs and other desired target or candidate proteins and polypeptides. The present invention also provides the antigenic peptides themselves, as well as antibodies against the antigenic peptides (and against proteins or polypeptides containing such antigenic peptides), and related diagnostics, antibody-based therapeutics directed to certain diseases and conditions, and other helpful compositions, systems, kits, assays and the like. The compositions, methods, and the like can be useful, for example, as agonists, antagonists, probes, and otherwise as may be desired.

25 [28] The antigenic peptides have been carefully selected using specific selection criteria and methodologies set forth herein to take advantage of particularly advantageous regions of the GPCRs from which they have been derived to provide unusually specific and

immunogenic antigens. These antigenic peptides are particularly useful for producing highly specific antibodies against the antigenic peptides, which, in turn, also means antibodies that are highly specific for the corresponding GPCRs containing the antigenic peptides. Accordingly, the antigenic peptides of the present invention, and the antibodies produced therefrom, are particularly useful for high specificity, low noise diagnostics and, in the case of the antibodies, for certain antibody-based therapeutics, as well as methods, kits, systems, and the like incorporating or based on such antigenic peptides or antibodies.

[29] The antibodies produced using the antigenic peptides of the present invention, for example, have a specificity for the corresponding GPCR such that the antibodies can selectively detect the corresponding GPCR in a sample containing non-desired or contaminating proteins or polypeptides, such as a tissue or blood sample. Preferably, the antibodies have a high specificity such that no significant amounts of such proteins or polypeptides are detected, and further preferably have a specificity such that only insubstantial to essentially zero amounts of non-desirable proteins are detected.

[30] The antibodies produced using the antigenic peptides of the present invention, for example, typically have an affinity or avidity constant (K_a) of at least about 10^7 liters/mole, typically a high affinity or avidity at least about 10^9 liters/mole, preferably at least about 10^{10} liters/mole, and further preferably at least about 10^{11} liters/mole.

[31] Figure 1 sets forth the DNA and protein sequences for the GPCRs from which the antigenic peptides of the present invention were derived SEQ ID NOS. 1-691. Figure 2 sets forth the amino acid sequences of exemplary antigenic peptides, SEQ ID NOS. 692-2292. The sequences in Figures 1 and 2 are listed according to SEQ ID NO and LSID, which is an identification number assigned to the given sequence in the LifeSpan Biosciences databases. The sequences in Figure 2 also include an identifier LPID, which is also an identification number assigned to the given sequence in the LifeSpan Biosciences databases. Figure 3 depicts GPCRs for which it has been reported that antibodies are commercially available, SEQ ID NOS. 1, 3, 5, 11, 13, 15, 21, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 49, 51, 53, 57, 59, 61, 63, 65, 67, 69, 70, 71, 73, 75, 77, 79, 83, 85, 97, 99, 101, 103, 105, 107, 113, 115, 117, 121, 125, 135, 139, 143, 145, 147, 151, 155, 157, 159, 161, 169, 171, 173, 175, 177, 183, 185, 187, 189, 191, 192, 194, 200, 202, 206, 208, 214, 216, 218, 228, 236, 238, 240, 248, 250, 264, 295, 299, 301, 305, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 347, 349, 351, 361, 365, 367, 369, 371, 377, 379, 385, 387, 389, 391, 397,

423, 435, 439, 457, 459, 461, 462, 468, 470, 472, 503, 507, 515, 535, 537, 546, 548, 552, 562, 628, 636; Applicants do not represent that any of the antibodies in Figure 3 that such antibodies are actually commercially available nor that they have any significant specificity nor affinity for the GPCRs reported. For GPCRs for which no antigens or antibodies were previously known, the present invention provides valuable antigenic peptides and antibodies (see, e.g., SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.); for GPCRs for which antigens or antibodies are known, the present invention provides improved antigens in the form of antigenic peptides and improved antibodies (see, e.g., SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, which are antigenic peptides derived from GPCRs for which antibodies are reportedly commercially available). The antigenic peptides and antibodies, and uses and assays, etc., related to the antigenic peptides, are discussed further below.

[32] The discussion herein, including the following passages, has been separated by headings for convenience. The disclosure under a given heading is not restricted to that heading. For example, the discussion in the definitions section is a part of the disclosure of the invention, the discussion on antigenic peptides also contains discussion related to probes and diagnostics, and the discussion on antibodies contains discussion related to therapeutic compositions, etc.

B. DEFINITIONS

[33] The following paragraphs provide a non-exhaustive list of definitions of some of the terms and phrases as used herein. All terms used herein, including those specifically described below in this section, are used in accordance with their ordinary meanings unless the context or definition indicates otherwise. Also unless indicated otherwise, except within

the claims, the use of "or" includes "and" and vice-versa. Non-limiting terms are not to be construed as limiting unless expressly stated (for example, "including" means "including without limitation" unless expressly stated otherwise).

[34] The terms set forth in this application are not to be interpreted in the claims as indicating a "means plus function" relationship unless the word "means" is specifically recited in a claim, and are to be interpreted in the claims as indicating a "means plus function" relationship where the word "means" is specifically recited in a claim. Similarly, the terms set forth in this application are not to be interpreted in method or process claims as indicating a "step plus function" relationship unless the word "step" is specifically recited in the claims, and are to be interpreted in the claims as indicating a "step plus function" relationship where the word "step" is specifically recited in a claim.

[35] "Agonist" indicates a substance, such as a molecule or compound, that interacts with a particular GPCR, for example by binding to the GPCR, to activate, increase, or prolong the amount or the duration of the effect of the biological activity or functionality of the GPCR. Agonists include proteins, nucleic acids, carbohydrates, or any other molecules that bind to and positively modulate the effect of the GPCR. Agonists and other modulators of the particular GPCR can be identified using *in vitro* or *in vivo* assays for G protein-coupled receptor expression or G protein-mediated signaling. For example, assays for agonists and other modulators include expressing a particular GPCR in cells or cell membranes, applying putative modulator compounds in the presence or absence of a specific known or putative ligand and then determining the functional effects on the particular GPCR-mediated signaling. Samples or assays comprising a particular GPCR that are treated with a potential agonist or other modulator are compared to control samples without the agonist or other modulator to examine the extent of modulation. Control samples can be assigned a relative activity value for the particular GPCR of 100%. Agonist activity on a particular GPCR is achieved when the G protein-coupled receptor activity value relative to the control is at least about 110%, optionally about 150%, preferably about 200-500%, or about 1000-3000% or higher. Down-modulation (for example by an antagonist) of a particular GPCR is achieved when the particular GPCR activity value relative to the control is at most about 90%, typically about 80%, optionally about 50% or about 25-0% of the 100% value.

[36] "Aggregate," see Complex.

[37] "Algorithm" refers to a detailed sequence of actions to perform to accomplish some task. In computer programming, refers to instructions given to the computer.

[38] "Allele" or "allelic sequence" indicates an alternative form of the gene encoding the GPCR. Alleles may result from at least one mutation in the nucleic acid sequence and may
5 result in altered mRNAs or in polypeptides whose structure or function may or may not be altered. Any given natural or recombinant gene may have none, one, or many allelic forms. Common mutational changes that give rise to alleles are generally ascribed to natural deletions, additions, or substitutions of nucleotides. Each of these types of changes may occur alone or in combination with the others, one or more times in a given sequence.

10 [39] "Altered" nucleic acid sequences encoding the GPCR include those sequences with deletions, insertions, or substitutions of different nucleotides, resulting in a polynucleotide encoding the same GPCR or a polypeptide variant with at least one substantial structural or functional characteristic of the GPCR. Included within this definition are polymorphisms that may or may not be readily detectable using a particular oligonucleotide probe against the
15 polynucleotide encoding the GPCR. "Altered" proteins may contain deletions, insertions, or substitutions of amino acid residues that produce a silent change and result in a functionally equivalent GPCR. Deliberate amino acid substitutions may be made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity, or the amphipathic nature of the residues, as long as the biological or immunological activity of the GPCR is
20 retained. For example, negatively charged amino acids may include aspartic acid and glutamic acid, positively charged amino acids may include lysine and arginine, and amino acids with uncharged polar head groups having similar hydrophilicity values may include leucine, isoleucine, and valine; glycine and alanine; asparagine and glutamine; serine and threonine; and phenylalanine and tyrosine.

25 [40] "Alternative splicing" refers to different ways of cutting and assembling exons to produce mature mRNAs.

[41] "Amino acid" refers generally to any of a class of organic compounds that contains at least one amino group, $-NH_2$, and one carboxyl group, $-COOH$. The alpha-amino acids, $RCH(NH_2)COOH$, are the building blocks from which proteins are typically constructed.
30 Amino acid can also refer to artificial chemical analogues or mimetics of a given amino acid as described, depending on the context.

[42] "Amino acid sequence" refers to a string of amino acids, such as an oligopeptide, peptide, polypeptide, or protein sequence, or a fragment of any of these, including naturally occurring or synthetic molecules and those comprising an artificial chemical analogue or mimetic of a given amino acid. In this context, "biologically active fragments," "biologically functional fragments," "immunogenic fragments," and "antigenic fragments" refer to fragments of the GPCR that are preferably about 15, 25, or 50 or more amino acids in length and that retain a substantial amount of such activity of the GPCR. Where "amino acid sequence" refers to an amino acid sequence of a naturally occurring protein molecule, "amino acid sequence" and like terms are not necessarily limited to the complete native amino acid sequence associated with the recited protein molecule.

[43] "Amplification" indicates the production of additional copies of something, such as a nucleic acid sequence. Amplification can be generally carried out using polymerase chain reaction (PCR) technologies or other technologies such as the cycling probe reaction (CPR) that are well known in the art. See, e.g., Dieffenbach, C. W. and G. S. Dveksler, PCR Primer, a Laboratory Manual, pp.1-5, Cold Spring Harbor Press, Plainview, N.Y. (1995); U.S. Patents Nos. 5,660,988, 5,731,146 and 6,136,533.

[44] "Amplification primers" are oligonucleotides such as natural, analog or artificially created nucleotides that can serve as the basis for the amplification of a selected nucleic acid sequence. They include, for example, both PCR primers and ligase chain reaction oligonucleotides.

[45] "Analog" or "variant" indicates a GPCR or antigenic peptide that has been modified by deletion, addition, modification, or substitution of one or more amino acid residues compared to the wild-type sequence. Analogs encompass allelic and polymorphic variants, and also muteins and fusion proteins that comprise all or a significant part of such GPCR, e.g., covalently linked via side-chain group or terminal residue to a different protein, polypeptide, or moiety (fusion partner). Variants of a particular GPCR protein refer to an amino acid sequence that is altered by one or more amino acids, for example by one or more amino acid substitution, insertion, deletion or modification, or proteins with or without associated native-pattern glycosylation. The variant may have "conservative" changes. Such "conservative" changes generally are well known in the art and readily determinable for a particular GPCR in view of the present application. Conservative changes include, for example, substitutions where a substituted amino acid has similar structural or chemical

properties to the amino acid it replaced (e.g., negatively charged amino acids include aspartic acid and glutamic acid; positively charged amino acids include lysine, arginine, histidine, asparagine, and glutamine; amino acids containing sulfur include methionine and cysteine; polar hydroxy amino acids include serine, threonine, and tyrosine; large hydrophobic amino acids include phenylalanine and tryptophan; small hydrophobic amino acids include alanine, leucine, isoleucine, and valine). A variant may also have "nonconservative" changes which means that the replacement amino acid provides some substantial change in the amino sequence.

[46] A variant preferably retains at least about 90% identity, and more preferably at least about 95% identity. Within certain embodiments, such variants contain alterations such that the ability of the variant to induce an immunogenic response is not substantially eliminated; in some embodiments the ability to an immunogenic response is not substantially diminished. Modifications of amino acid residues may include but are not limited to aliphatic esters or amides of the carboxyl terminus or of residues containing carboxyl side chains, O-acyl derivatives of hydroxyl group-containing residues, and N-acyl derivatives of the amino-terminal amino acid or amino-group containing residues, e.g., lysine or arginine. Guidance in determining which and how many amino acid residues may be substituted, inserted, deleted or modified without diminishing immunological or biological activity may be found in view of the present application using any of a variety of methods and computer programs known in the art, for example, DNASTAR software. Properties of a variant may generally be evaluated by assaying the reactivity of the variant with, for example, antibodies as described herein or evaluating a biological activity characteristic of the native protein as described herein or as known in the art in view of the present application. Certain polynucleotide variants are capable of hybridizing under appropriately stringent conditions to a naturally occurring DNA sequence encoding a particular GPCR protein (or a complementary sequence). Such hybridizing nucleic acid sequences are also within the scope of this invention.

[47] "Antagonist" refers to a molecule which interacts with a particular GPCR, for example by binding to the particular GPCR, and prevents, inactivates, decreases or shortens the amount or the duration of the effect of the biological activity of the GPCR. Antagonists include proteins, nucleic acids, carbohydrates, antibodies, or any other molecules that so affect the GPCR. Antagonists can be identified, for example, using appropriate screens

corresponding to those described for agonists above and elsewhere herein or as would be apparent to those skilled in the art in view of the present application.

[48] "Antibody" indicates one type of binding partner, typically encoded by an immunoglobulin gene or immunoglobulin genes, and refers to, for example, intact
5 monoclonal antibodies (including agonist and antagonist antibodies), polyclonal antibodies, phage display antibodies, and multispecific antibodies (*e.g.*, bispecific antibodies) formed, for example, from at least two intact antibodies. Antibody also refers to fragments thereof, which comprise a portion of an intact antibody, generally the antigen-binding or variable region of the intact antibody that are capable of binding the epitopic determinant. Examples
10 of antibody fragments include Fab, Fab', F(ab')₂, and Fv fragments, diabodies, linear antibodies, single-chain antibody molecules, and multispecific antibodies formed from antibody fragments. *See* US Patent No. 6,214,984. Antibody fragments may be synthesized by digestion of an intact antibody or synthesized *de novo* either chemically or utilizing recombinant DNA technology. Antibodies according to the present invention have at least
15 one of adequate specificity, affinity and capacity to perform the activities desired for the antibodies. Antibodies can, for example, be monoclonal, polyclonal, or combinatorial. Antibodies that bind GPCR polypeptides can be prepared using intact polypeptides or using fragments containing small peptides of interest as the immunizing antigen. The polypeptide or oligopeptide used to immunize an animal (*e.g.*, a mouse, a rat, or a rabbit) can be derived
20 from the translation of RNA, or synthesized chemically, and can be conjugated to a carrier protein if desired. Commonly used carriers that are chemically coupled to peptides include bovine serum albumin, thyroglobulin, and keyhole limpet hemocyanin (KLH). The coupled peptide is then used to immunize the animal.

[49] "Antigenic determinant" refers to the antigen recognition site on an antigen (*i.e.*,
25 epitope). Such antigenic determinant may also be immunogenic.

[50] "Antisense" refers to any composition containing a nucleic acid sequence that is complementary to a specific nucleic acid sequence. "Antisense strand" refers to a nucleic acid strand that is complementary to the "sense" strand. Antisense molecules may be produced by any method including transcription or synthesis including synthesis by ligating
30 the gene(s) of interest in a reverse orientation to a desired promoter that permits the synthesis of a complementary strand. Once introduced into a cell, the complementary nucleotides can combine with natural sequences produced by the cell to form duplexes and to block either

transcription or translation. The designation "negative" can refer to the antisense strand, and the designation "positive" can refer to the sense strand.

[51] **"Biologically active" or "biologically functional,"** when referring to an antigenic peptide, indicates that the antigenic peptide induces an immunogenic response specific for the antigenic peptide and thus for the GPCR from which it was obtained. A variant, fragment, etc., of an antigenic peptide is "biologically active" or "biologically functional" if the ability to induce the specific immunogenic response is not substantially diminished. The term "not substantially diminished" means retaining a functionality that is at least about 90% of the functionality of the native antigenic peptide. Appropriate assays designed to evaluate such functionality may be designed based on existing assays known in the art in view of the present application, or on the representative assays provided herein.

[52] **"Annotation"** refers to the provision of helpful or identifying information about a GPCR or other open reading frame (ORF), such as locus name, key words, and Medline references.

15 [53] **"BLAST"** refers to the Basic Local Alignment Search Tool, which is a technique for detecting ungapped sub-sequences that match a given query sequence. BLAST can be used as a preliminary step for detecting ORF boundaries.

[54] **"BLASTP"** refers to a BLAST program that compares an amino acid query sequence against a protein sequence database.

20 [55] **"BLASTX"** refers to a BLAST program that compares the six-frame conceptual translation products of a nucleotide query sequence (both strands) against a protein sequence database. BLASTX can be used to create a sub-database of ORFs which may exist on a contig, and to identify the best match between one of these ORFs and a sequence in an external database.

25 [56] **"Buffer"** refers to a component in a solution to provide a buffered solution that resists changes in pH by the action of its acid-base conjugate components.

[57] **"CDS"** refers to the GenBank DNA sequence entry for coding sequence. A coding sequence is a sub-sequence of a DNA sequence that is surmised to encode a gene. A complete gene coding sequence begins with an "ATG" and ends with a stop codon.

30 [58] **"Clone"** in molecular biology refers to a vector carrying an insert DNA sequence.

[59] **"Cloning"** in molecular biology refers to a recombinant DNA technique used to produce multiple, up to millions or more, copies of a DNA sequence. The DNA sequence is

inserted into a small carrier or vector (*e.g.*, plasmid, bacteriophage, or virus) and inserted into a host cell for amplification or expression.

[60] "Cluster" refers to a group of ORFs related to one another by sequence homology. Clusters are generally determined by a specified degree of homology and overlap (*e.g.*, a stringency).

[61] "Comparison window" indicates a segment of any one of the number of contiguous positions selected from the group consisting of from 20 to 600, usually about 50 to about 200, more usually about 100 to about 150 in which a sequence may be compared to a reference sequence of the same number of contiguous positions after the two sequences are aligned to enhance sequence similarity. Methods of alignment of sequences for comparison will be readily apparent to a person of ordinary skill in the art in view of the present application.

[62] "Complementary" or "complementarity" refers to the natural binding of polynucleotides by base pairing. For example, the sequence "A-G-T" binds to the complementary sequence "T-C-A." Complementarity between two single-stranded molecules may be "partial," such that only some of the nucleic acids bind, or it may be "complete," such that all of the nucleotides of at least one of the single-stranded molecules binds to corresponding nucleotides of the other single-stranded molecule. The degree of complementarity between nucleic acid strands has significant effects on the efficiency and strength of the hybridization between the nucleic acid strands. This can be of particular importance in amplification reactions, which can depend upon binding between nucleic acids strands, and in the design and use of peptide nucleic acid (PNA) molecules.

[63] "Complex," or "aggregate," indicates a dimer or multimer formed between at least two proteins or other macromolecules, for example a GPCR and its ligand.

[64] "Composition" indicates a combination of multiple substances into a mixture.

[65] "Composition comprising a given amino acid sequence" refers broadly to any composition containing the given amino acid sequence. The composition may comprise a dry formulation, an aqueous solution, or a sterile composition.

[66] "Consensus sequence" refers to the sequence that reflects the most common choice of base or amino acid at each position from a series of related DNA, RNA, or protein sequences. Areas of particularly good agreement often represent conserved functional domains. The generation of consensus sequences has typically been subjected to intensive mathematical analysis.

- [67] "Conservative changes" to an amino acid sequence, see Analog.
- [68] "Deletion" refers to a change in the amino acid or nucleotide sequence that results in the absence of one or more amino acid residues or nucleotides.
- [69] "Derivative" refers to chemical modification of an antigenic peptide, or of an antibody specific for and created from the antigenic peptide. A derivative peptide can be modified, for example, by glycosylation or pegylation.
- [70] "Diabodies" refers to one type of antibody comprising small antibody fragments with two antigen-binding sites, which fragments comprise a heavy-chain variable domain (V_H) connected to a light-chain variable domain (V_L) on the same polypeptide chain (V_H - V_L).
By using a linker that is too short to allow pairing between the two domains on the same chain, the domains pair with the complementary domains of another chain and create two antigen-binding sites. Diabodies are described, for example, in EP 404,097; WO 93/11161; and Holliger et al., Proc. Natl. Acad. Sci. USA, 90:6444-6448 (1993).
- [71] "Database" refers to a structured format for organizing and maintaining information or data, a collection of data records, in a computer-readable form that can be rapidly and easily retrieved. A database is typically stored in a computer-readable memory. Records may comprise web pages, graphics, audio files, text files, or links. Records may or may not be further broken into fields. Database records are usually indexed and come with a search interface to find records of interest.
- [72] "E-value" refers to a result of a FASTA analysis. The number indicates the probability that a match between two sequences is due to random chance.
- [73] "Expression vector" is a specialized vector constructed so that the gene inserted in the vector can be expressed in the cytoplasm of a host cell.
- [74] "FASTA" refers to a modular set of sequence comparison programs used to compare an amino acid or DNA sequence against all entries in a sequence database. FASTA was written by Professor William Pearson of the University of Virginia Department of Biochemistry. The program uses the rapid sequence algorithm described by Lipman and Pearson (1988) and the Smith-Waterman sequence alignment protocol. FASTA performs a protein to protein comparison.
- [75] "FASTX" refers to a module of the FASTA protocol used to define optimal ORF boundaries while searching for genes. FASTX uses a nucleotide to protein sequence comparison.

[76] "Fragment," see Portion.

[77] "GenBank" refers to a family of public databases comprising nucleic acid and amino acid sequence information, including the GenPept bacterial peptide database.

[78] "Gene" refers to the basic unit of heredity that carries the genetic information for a given RNA or protein molecule. A gene is composed of a contiguous stretch of DNA and contains a coding region that is flanked on each end by regions that are transcribed but not translated. A gene is a segment of DNA involved in producing a biologically active or biologically functional polypeptide chain.

[79] "Heterologous" indicates a nucleic acid that comprises two or more subsequences that are not found in the same relationship to each other in nature. For instance, the nucleic acid is typically recombinantly produced, having two or more sequences from unrelated genes arranged to make a new functional nucleic acid, e.g., a promoter from one source and a coding region from another source. Similarly, a heterologous protein indicates that the protein comprises two or more subsequences that are not found in the same relationship to each other in nature (e.g., a fusion protein).

[80] "Hit Threshold" refers to a pre-set E-value or P-value for evaluating sequence matches. For example, this value can be set at $1e-6$ for finding genes; and at $1e-15$ for clustering genes.

[81] "Homology" refers to a degree of complementarity. There may be partial homology or complete homology. The word "identity" may substitute for the word "homology." A partially complementary sequence that at least partially, and substantially, inhibits a corresponding sequence from hybridizing to a target nucleic acid is referred to as "substantially homologous." The inhibition of hybridization of the completely complementary sequence to the target sequence may be examined using a hybridization assay (e.g., Southern or Northern blot, *in situ* hybridization, solution hybridization) under conditions of reduced stringency. A substantially homologous sequence or hybridization probe will compete for and inhibit the binding of a completely homologous sequence to the target sequence under stringency conditions that inhibit non-specific binding but permit specific binding. The absence of non-specific binding may be tested by the use of a second target sequence which lacks even a partial degree of complementarity (e.g., less than about 30% homology or identity). In the absence of non-specific binding, the substantially

homologous sequence or probe will not hybridize to the second, non-complementary target sequence.

[82] **"Humanized antibody"** refers to antibody molecules in which the amino acid sequence in the non-antigen-binding regions has been altered so that the antibody more closely resembles a human antibody, and still retains its original binding ability. Typically, humanized antibodies are human immunoglobulins (recipient antibody) in which residues from a complementarity-determining region (CDR) of the recipient are replaced by residues from a CDR of a non-human species (donor antibody) such as mouse, rat or rabbit having the desired specificity, affinity, and capacity. In some instances, Fv framework residues of the human immunoglobulin are replaced by corresponding non-human residues. Furthermore, humanized antibodies may comprise residues that are found neither in the recipient antibody nor in the imported CDR or framework sequences. These modifications are typically made to further refine and optimize antibody performance. In general, the humanized antibody will comprise substantially all of at least one, and typically two, variable domains, in which all or substantially all of the CDR regions correspond to those of a non-human immunoglobulin and all or substantially all of the framework (FR) regions are those of a human immunoglobulin sequence. The humanized antibody optimally also will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin. For further details see, *e.g.*, Jones et al., *Nature*, 321:522-525 (1986); Reichmann et al., *Nature*, 332:323-329 (1988); and, Presta, *Curr. Op. Struct. Biol.*, 2:593-596 (1992).

[83] **"Identity,"** see Homology.

[84] **"Immunocytochemistry"** refers to the use of immunologic methods, including a specific antibody, to study cell constituents.

[85] **"Immunohistochemistry"** refers to the use of immunologic methods, including a specific antibody, to study specific antigens in tissue slices.

[86] **"Immunolocalization"** refers to the use of immunologic methods, including a specific antibody, to locate molecules or structures within cells or tissues.

[87] **"Immunologically active"** refers to the capability of a natural, recombinant, or synthetic GPCR, or any immunogenic fragment thereof, to induce a specific immune response in appropriate animals or cells and to bind with specific antibodies. A polypeptide is "immunologically active" if it is recognized by (*e.g.*, specifically bound by) a B-cell or T-

cell surface antigen receptor. Immunological activity may generally be assessed using well known techniques, such as those summarized in Paul, Fundamental Immunology, 3rd ed., 243-247, Raven Press (1993) and references cited therein. Such techniques include screening polypeptides derived from the native polypeptide for the ability to react with antigen-specific antisera or T-cell lines or clones, which may be prepared in view of the present application using well known techniques. Preferably, an immunologically active portion of a GPCR protein reacts with such antisera or T-cells at a level that is not substantially lower than the reactivity of the full-length polypeptide (e.g., in an ELISA or T-cell reactivity assay). Such screens may generally be performed using methods well known to those of ordinary skill in the art in view of the present application, such as those described in Harlow and Lane, Antibodies: A Laboratory Manual, Cold Spring Harbor Press (1988). B-cell and T-cell epitopes may also be predicted via computer analysis.

[88] "Immune response" refers to any of the body's immunologic reactions to an antigen such as antibody formation, cellular immunity, hypersensitivity, or immunological tolerance.

[89] "Insertion" and "addition" when referring to a change in a nucleotide or amino sequence indicate the addition of one or more nucleotides or amino acid residues, respectively, to the sequence.

[90] "*In situ* hybridization" refers to use of a nucleic acid probe, typically a DNA or RNA probe, to detect the presence of a DNA or RNA sequence in target cells such as cloned bacterial cells, cultured eukaryotic cells, or tissue samples. *In situ* hybridization can also be used for locating genes on chromosomes. The process can be performed by preparing a microscope slide with cells in metaphase of mitosis, then treating slide with a weak base to denature the DNA. Next, pour radioactively labeled probe onto the slide under hybridizing conditions, expose the slide to a photographic emulsion for a suitable period such as a few days or weeks, then develop the emulsion.

[91] "Isoform" refers to different forms of a protein that may be produced from different genes or from the same gene by alternative RNA splicing.

[92] "Isolated" generally means that the material is removed from its original environment (e.g., the natural environment if it is naturally occurring).

[93] "Library" refers physically to a pool of nucleic acid fragments that has been propagated in a cloning vector. Library can also refer to an electronic collection of genomic

or proteomic sequence data, including raw sequences, contigs, ORFs and loci from a specific organism.

[94] "Ligand" refers to an ion or molecule that binds with another molecule, such as a GPCR, to form a macromolecule such as a receptor-ligand complex. An "endogenous
5 ligand" refers to a native ligand that binds to the receptor of the GPCR and modulates biological activity or functionality of the GPCR in its native environment. A "specific ligand" is a ligand able to bind to a particular GPCR and modulate the biological activity or functionality of the particular GPCR; an endogenous ligand is one example of a specific ligand.

10 [95] "Microarray" refers to an array of distinct nucleic acid or amino acid molecules arrayed on a substrate, such as paper, nylon or any other type of membrane, filter, chip, glass slide, or any other suitable solid support. Microarrays can also refer to tissue microarrays, composed of small tissue pieces arranged on a slide. U.S. Pat. No. 5,143,854 and PCT Patent Publication Nos. WO 90/15070 and 92/10092.

15 [96] "Mimetic" refers to a molecule, *e.g.*, a peptide or non-peptide agent, such as a small molecule, that is able to perform the same biological activity as a certain biologically active agent. For example, some mimetics are molecules comprising the same biological function or activity as the particular GPCR. The structure of the mimetic can be developed from knowledge of the structure of the particular GPCR or portions thereof. For appropriate
20 mimetics, the mimetic is able to effect some or all of the actions of a given antigenic peptide or antibodies against the antigenic peptide. Such mimetics can be made, in view of the present application, using techniques well known in the art, *see, e.g.*, U.S. Patent Nos. 6,197,752; 6,093,697; 6,207,643; 5,849,323, and can be included in the various processes, methods, and systems, etc., described herein, such as databases, binding partner assays,
25 probes, medicaments, and therapeutics.

[97] "Modulate" refers to controllably changing the activity of a substance or other item, such as the biological activity of a GPCR, antigenic peptide or corresponding antibody. For example, modulation may cause an increase or a decrease in protein activity, binding characteristics, or other biological, functional, or immunological properties of the GPCR.

30 [98] "Monoclonal antibody" refers to an antibody obtained from a population of substantially homogeneous antibodies, *e.g.*, the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present

in minor amounts. Monoclonal antibodies include "chimeric" antibodies (immunoglobulins) in which a portion of the heavy or light chain is identical with or homologous to corresponding sequences in antibodies derived from a particular species or belonging to a particular antibody class or subclass, while the remainder of the chain(s) is identical with or homologous to corresponding sequences in antibodies derived from another species or belonging to another antibody class or subclass, as well as fragments of such antibodies, so long as they exhibit the desired biological activity. U.S. Pat. No. 4,816,567; Morrison et al., P.N.A.S. USA, 81:6851-6855 (1984). Monoclonal antibodies are highly specific, being directed against a single antigenic site. As a matter of distinction, polyclonal antibody preparations typically include different antibodies directed against different determinants (epitopes) of a target antigen whereas each monoclonal antibody is directed against a single determinant on the antigen. Monoclonal antibodies can be synthesized by hybridoma culture, uncontaminated by other immunoglobulins. For example, the monoclonal antibodies to be used in accordance with the present invention may be made by the hybridoma method first described by Kohler and Milstein, Nature, 256:495 (1975); or may be made by recombinant DNA methods. See, e.g., U.S. Pat. No. 4,816,567. Monoclonal antibodies may also be isolated from phage antibody libraries using the techniques described in Clackson et al., Nature, 352:624-628 (1991), and Marks et al., J. Mol. Biol., 222:581-597 (1991), for example. The modifier "monoclonal" indicates the character of the antibody as being obtained from a substantially homogeneous population of antibodies, and is not to be construed as requiring production of the antibody by any particular method.

[99] "Nonconservative" changes to an amino acid sequence, see Analog.

[100] "Northern blotting" or "Northern analysis" refers to a method used to detect specific RNA sequences. For example, the process can be performed by electrophoresing RNA in a denaturing agarose gel, transferring the gel onto a membrane, and hybridizing with a labeled RNA or DNA probe.

[101] "Nucleic acid sequence" refers to a polymer comprising a string of "nucleic acids" such as an oligonucleotide, or a polynucleotide or fragment thereof. The nucleic acid sequence can be from DNA or RNA of genomic or synthetic origin, may be single-stranded or double-stranded, and may represent the sense or the antisense strand. A nucleic acid sequence can also be a PNA or a DNA-like or RNA-like material. Unless stated otherwise,

the term encompasses nucleic acids containing known analogues or mimetics of natural nucleotides that have similar binding properties as the reference nucleic acid.

[102] **"Oligonucleotide"** refers to a nucleic acid sequence, generally between 6 nucleotides to 60 nucleotides, preferably about 15 to 30 nucleotides, and most preferably about 20 to 25 nucleotides, that can, for example, be used in PCR or other nucleic acid amplification or in a hybridization assay or microarray. "Oligonucleotide" includes "amplimers," "primers," "oligomers," and "probes," as these terms are commonly defined in the art. Oligonucleotides can be chemically synthesized. Such synthetic oligonucleotides may have no 5' phosphate and if so will not ligate to another oligonucleotide without adding a phosphate, typically by using an ATP in the presence of a kinase. A synthetic oligonucleotide will ligate to a fragment that has not been dephosphorylated.

[103] **"Operably linked"** or **"operably connected"** indicates that one element of an apparatus, system, or method, etc., is connected to another element of the apparatus, system, or method, etc., such that the two elements are able to perform their intended purposes. For example, when a promoter is linked to a polynucleotide to allow transcription of the polynucleotide, it is "operably linked" to the polynucleotide.

[104] **"Orphan receptor"** refers to a receptor for which the endogenous ligand or other ligands inducing biological activity are not known.

[105] **"PCR"** or **"polymerase chain reaction"** refers to an *in vitro* method that uses oligonucleotide primers, enzymes, and a series of repetitive temperature cycles to generate millions of copies of a nucleic acid, typically DNA, from an original specimen of a specific DNA sequence, which specimen may be present only in a trace amount.

[106] **"Plasmids"** refers to extrachromosomal genetic elements composed of DNA or RNA found in both eukaryotic and prokaryotic cells that can propagate themselves autonomously in cells. Plasmids can be used as carriers or vectors to clone DNA molecules. They are designated by a lower case p preceded or followed by capital letters or numbers. The starting plasmids herein are either commercially available, publicly available on an unrestricted basis, or can be constructed from available plasmids in accord with published procedures. In addition, equivalent plasmids to those described are known in the art and will be apparent to the ordinarily skilled artisan in view of the present application.

[107] **"Polynucleotide encoding a polypeptide"** indicates a polynucleotide that includes only the coding sequence for the polypeptide as well as polynucleotides that include additional coding or non-coding sequence.

[108] **"Portion"** or **"fragment"** with regard to a protein (as in "a portion of a given protein") refers to parts of that protein, a subsequence of the complete amino acid sequence of the receptor containing at least about 8, usually at least about 12, more typically at least about 20, and commonly at least about 30 or more contiguous amino acid residues, up to the entire amino acid sequence minus one amino acid. Thus, a protein "comprising at least a portion of the amino acid sequence of SEQ ID NO:XX" or a protein "comprising at least a portion of the amino acid sequence of a particular GPCR" encompasses the full-length protein and fragments thereof. A portion or fragment of a nucleic acid refers to nucleic acid sequences that are greater than about 12 nucleotides in length, and typically at least about 60 or 100 nucleotides, generally at least about 1000 nucleotides, or at least about 10,000 nucleotides in length, up to the entire nucleic acid sequence minus one nucleic acid.

[109] **"P-value"** is a statistical term used to indicate the probability that an event is due to random chance. When used in reference to a result of BLAST searches, the number indicates the probability that a match between two sequences is due to random chance.

[110] **"Receptor"** refers to a molecular structure, typically within a cell or on a cell surface, that selectively binds a specific substance (a ligand) and a specific physiologic effect that accompanies the binding. GPCRs are a type of cell-surface receptor, which means a protein in, on, or traversing the cell membrane (in the case of GPCRs, traversing the cell membrane) that recognizes and binds to specific molecules in the surrounding fluid. The binding to a receptor may serve to transport molecules into the cell's interior or to signal the cell to respond in some way.

[111] **"Recombinant"** refers to both a method of production and a structure. Some recombinant nucleic acids and proteins are made by the use of recombinant DNA techniques that involve human intervention, either in manipulation or selection. Others are made by fusing two fragments that are not naturally contiguous to each other. Engineered vectors are encompassed, as well as nucleic acids comprising sequences derived using any synthetic oligonucleotide process.

[112] **"Sample"** is used in its usual broad sense. For example, a biological sample suspected of containing nucleic acids encoding the GPCR, or fragments thereof, or the GPCR

itself, may comprise a bodily fluid; an extract from a cell, chromosome, organelle, or membrane from a cell; a cell; genomic DNA, RNA, or cDNA (in solution or bound to a solid support); a tissue; a tissue print, and the like. Biological sample refers to samples from a healthy individual as well as to samples from a subject suspected of having or susceptible to having, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

[113] "Second messengers" refer to intracellular signaling molecules such as cyclic AMP (cAMP), inositol triphosphate, diacylglycerol, or Ca^{2+} . Second messengers, in turn, alter the

activity of other intracellular proteins such as cAMP-dependent protein kinase and Ca^{2+} /calmodulin-dependent protein kinases, leading to the transduction and amplification of the original extracellular signal.

[114] "Southern blotting" refers to a method for detecting specific DNA sequences via hybridization. For example, a DNA sample can be electrophoresed in a denaturing agarose gel, transferred onto a membrane, and hybridized with a complementary nucleic acid probe. "Southern" when used in reference to a database indicates an electronic analog of the laboratory technique, which analysis can be used to identify libraries in which a given DNA sequence, such as a gene, EST, or ORF is present. The terms "Northern" and "Western" likewise can be used for electronic analogs to the respective laboratory techniques described above.

[115] "Specific binding" or "specifically binding" refers to an interaction between protein or peptide and a certain substance, such as its specific ligand or antibody, and in some cases its agonists or antagonists. The interaction is dependent upon the presence of a particular structure of the protein recognized by the binding molecule (*e.g.*, the antigenic determinant or epitope). For example, if an antibody specifically binds epitope "A," the presence of a polypeptide containing epitope A or the presence of free unlabeled epitope A will reduce the amount of labeled epitope A that binds to the antibody in a reaction containing free labeled epitope A and the antibody. Conversely, the presence of a polypeptide that does not contain epitope A will not reduce the amount of labeled epitope A that binds to the antibody. Highly specific binding indicates that the protein or peptide binds to its particular ligand, antibody, etc., and does not bind in a significant amount to other proteins present in the sample. Typically, a specific or selective reaction will be at least twice the background signal or noise and more typically more than 10 to 100 times the background signal or noise.

[116] "Stringent conditions" refer to conditions that permit hybridization between complementary polynucleotide sequences. Suitably stringent conditions can be defined by, for example, the concentrations of salt or formamide in the prehybridization and hybridization solutions, or by the hybridization temperature. Stringency can be increased by reducing the concentration of salt, increasing the concentration of formamide, or raising the hybridization temperature. Stringent conditions are dependent upon the type of probe as well as the length of the probe and the GC content of the probe. "Stringent conditions" typically

occur within a range from about $T_m - 5^\circ\text{C}$ (5°C below the melting temperature (T_m) of the probe) to about $T_m - 20 - 25^\circ\text{C}$ for a cRNA probe and to about $T_m - 15^\circ\text{C}$ for an oligonucleotide probe. **"Highly stringent conditions"** refers to conditions under which a probe will hybridize to its target sequence, typically in a complex mixture of nucleic acid sequences, but will not substantially hybridize to other sequences. One example of high stringency conditions for a cRNA probe that is 1,000 nucleotides in length and has a GC content of about 60% is about $55 - 65^\circ\text{C}$ in 50% formamide, 0.1 X SSC, and 200 $\mu\text{g/ml}$ sheared and denatured salmon sperm DNA. One example of low stringency conditions for the same probe in 50% formamide, 0.1 X SSC, and 200 $\mu\text{g/ml}$ sheared and denatured salmon sperm DNA would be $30 - 35^\circ\text{C}$. **"Very highly stringent conditions"** indicates that there must be complete identity between the sequences. The temperature range corresponding to a particular level of stringency can be narrowed further by calculating the purine to pyrimidine ratio of the nucleic acid of interest and adjusting the temperature accordingly. Variations on and modifications of the above ranges and conditions will be readily appreciated by those of skill in the art in view of the present application. As will be understood by those of skill in the art in view of the present application, the stringency of hybridization can be altered to identify or detect identical or related polynucleotide sequences. One guide for nucleic acid hybridization is Tijssen, Laboratory Techniques in Biochemistry and Molecular Biology-v.24 Hybridization with Nucleic Acid Probes, Part I "Overview of principles of hybridization and the strategy of nucleic acid assays" (New York: Elsevier 1993).

[117] **"Substantially purified"** refers to nucleic acid or amino acid sequences that are removed from their natural environment and are separated from other components from such natural environment, and are at least about 60% free, preferably about 75% or 85% free, and most preferably about 90%, 95% or 99% free from such other components with which they are naturally associated. Substantially purified preferably indicates a substantially homogeneous state and can be in either a dry or aqueous solution or other composition as desired. Purity and homogeneity can be assayed by standard methods, for example on a mass or molar basis, using analytical chemistry techniques such as polyacrylamide gel electrophoresis or high performance liquid chromatography.

[118] "Substitution" when referring to a change in a nucleotide or amino sequence indicates the replacement of one or more nucleotides or amino acids by different nucleotides or amino acids, respectively.

[119] "Variant," see Analog.

5 [120] "Western blotting" or "Western analysis" refers to a method for detecting specific protein sequences. For example, the process can be performed by electrophoresing a protein mixture in a denaturing agarose or acrylamide gel, transferring the mixture onto a membrane, and incubating it with an antibody raised against the protein of interest.

[121] Other terms and phrases are defined in other portions of this application.

10

C. SELECTION OF DESIRED ANTIGENIC PEPTIDES FOR GPCRs AND OTHER POLYPEPTIDES

[122] The present invention provides improved antigenic peptides, for example as set forth in Figure 2, SEQ ID NOS. 692-2292, and improved methods of identifying such
15 antigenic peptides from known or publicly available sequences of polypeptides or proteins, i.e., from a candidate polypeptide sequence. Polypeptide and protein are used in their traditional sense to indicate lengthy amino acid molecules, whereas the antigenic peptide has a length significantly less than the length of the corresponding polypeptide or protein such that the antigenic peptide is capable of providing significantly improved antigenicity relative
20 to the corresponding polypeptide or protein, typically improved specificity, affinity or avidity. The candidate polypeptide can be, for example, a human protein or polypeptide, a naturally occurring protein or polypeptide or a synthetic or recombinant protein or polypeptide.

[123] The antigenic peptides are typically 5 to about 100 amino acids in length, preferably
25 6 to about 50 amino acids, and further preferably 7 to about 20 amino acids. The antigenic peptides include short antigenic amino acid sequences (i.e., peptides comprising only a portion of an antigenic sequence as set forth in Figure 2 or as identified using the methods described herein, plus an insignificant number of additional amino acids at one or both ends, where insignificant indicates that the extra amino acids do not substantially interfere with the
30 antigenicity of the antigenic peptide). Such short antigenic peptides can be identical to at least 5, 6, 7 or more consecutive amino acids of the sequences herein or identified using the methods described herein, or can have one or two (or more, with increasing length)

conservative amino acid substitution for antigenic peptides comprising more than 6 or 7 consecutive amino acids of the sequences herein or identified using the methods described herein. Antigenic peptides and sequences, and related antibodies and assays and the like, are discussed further elsewhere herein with regard to GPCRs, but such discussions applies to all
5 antigenic peptides produced according to the methods herein, including proteins and polypeptides such as kinases, phosphatases and any other desired protein or polypeptide.

[124] The identification or selection methods comprise searching the candidate polypeptide sequence using a comparison window of the desired length, then selecting against or rejecting amino acid sequences of the length and having at least 1 characteristic
10 selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8) tryptophan, and 9) at least five consecutive amino acids comprising no charged amino acids. Preferably, at least 5, 7, 8, or all of the characteristics are selected.

15 [125] The identification or selection methods can also comprise selecting against amino acid sequences having at least 5 consecutive amino acids that are identical to an alternative amino acid sequence from an alternative polypeptide, i.e., some polypeptide other than the candidate polypeptide from which the selected antigen was derived, that is different from the candidate polypeptide, posttranslational modification sites, or highly hydrophobic sequences,
20 which indicates sequences adequately hydrophobic to be located in a lipid membrane such as a cellular membrane. The posttranslational modification sites can be phosphorylation or glycosylation sites.

[126] The methods can further comprise performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence. Exemplary BLAST-type and FAST-type
25 analyses are described above, including BLAST, BLASTP, BLASTX, FASTA, and FASTX.

D. GENERAL DISCUSSION OF ANTIGENIC PEPTIDES RELATED TO PARTICULAR GPCRS

[127] ANTIGENIC PEPTIDES GENERALLY:

30 [128] The present invention includes antigenic peptides able to induce specific immunogenic responses, and corresponding binding partners. Such antigenic peptides and

binding partners can be cloned, expressed, isolated, purified, and otherwise obtained or manipulated according to routine methods known in the art in view of the present application.

[129] The present invention further relates to antigenic peptides having an amino acid sequence from a particular GPCR, including analogs, mimetics, fragments, derivatives, and the like of such antigenic peptides. See SEQ ID NOS. 1-2292, Figures 1-3. The antigenic peptides may be recombinant, natural or synthetic. The antigenic peptides include (i) antigenic peptides in which one or more of the amino acid residues are substituted with a conserved or non-conserved amino acid residue (preferably a conserved amino acid residue) and such substituted amino acid residue may or may not be one encoded by the genetic code, (ii) antigenic peptides in which one or more of the amino acid residues includes a substituent group, (iii) antigenic peptides in which the mature polypeptide is complexed (*e.g.*, fused or otherwise bonded) with another compound, such as a compound to increase the half-life of the polypeptide (for example, polyethylene glycol), and (iv) antigenic peptides in which additional amino acids are fused to the antigenic peptide. Preparing and using such analogs, etc., are within the scope of those skilled in the art in view of the present application. The antigenic peptides additionally include antigenic peptides that have at least about 90% identity to the given antigenic peptide, and preferably at least about 95% identity to the antigenic peptide. The antigenic peptides additionally include antigenic peptides that contain at least five, six, seven or more consecutive amino acids that are identical to the given antigenic peptide, as well as antigenic peptides that contain at least six, seven, eight or more consecutive amino acids that are identical to the given antigenic except for one or two conservative changes within this such stretch of amino acids. The antigenic peptides of the present invention can be produced by peptide synthesis.

[130] EXPRESSION PROFILES BASED ON PROTEINS:

[131] An expression profile of a particular GPCR in one or more tissues can be made using antibodies or other binding partners produced using the antigenic peptides herein, then using traditional approaches such as Western blotting, immunohistochemistry analysis, protein array, ligand-binding studies, radioimmunoassay (RIA), and high performance liquid chromatography (HPLC), and immunohistochemistry analysis. H&E staining and other analyses can be used in combination with such immunologically-based analyses.

[132] SCREENING FOR ACTIVITY:

[133] The activity or functionality of an antigenic peptide can be measured using any of a variety of assays known in the art. Similarly, the specificity or affinity of an antibody or other binding partner made using the antigenic peptide can be measured using any of a variety of assays known in the art

- 5 [134] The activity or functionality of a particular GPCR may be measured using any of a variety of functional assays in which activation of the receptor in question results in an observable change in the level of some second messenger system, including but not limited to adenylyl cyclase, calcium mobilization, arachidonic acid release, ion channel activity, inositol phospholipid hydrolysis, or guanylyl cyclase. Heterologous expression systems utilizing
10 appropriate host cells to express the nucleic acid of the subject invention are used to obtain the desired second messenger coupling. Receptor activity may also be assayed in an oocyte expression system.

[135] PROTEIN PURIFICATION:

- [136] The antigenic peptides and proteins or polypeptides containing them can be purified
15 by standard methods, including but not limited to salt or alcohol precipitation, preparative disc-gel electrophoresis, isoelectric focusing, high pressure liquid chromatography (HPLC), reversed-phase HPLC, gel filtration, cation and anion exchange, partition chromatography, and countercurrent distribution. Suitable purification methods will be readily apparent to those skilled in the art in view of the present application and are disclosed, *e.g.*, in Guide to
20 Protein Purification, Methods in Enzymology, Vol. 182, M. Deutscher, Ed., Academic Press, New York, NY (1990). Purification steps can be followed as part of carrying out assays for ligand binding activity. Particularly where a particular GPCR is being isolated from a cellular or tissue source, it is preferable to include one or more inhibitors of proteolytic enzymes in the assay system, such as phenylmethylsulfonyl fluoride (PMSF).

25

**E. CERTAIN ASSAYS, ANTIBODIES, PROBES, THERAPEUTICS, AND
OTHER SYSTEMS AND ASPECTS, OF THE INVENTION**

**1. SYSTEMS AND METHODS FOR SCREENING FOR A
PARTICULAR GPCR OR ANTIGENIC PEPTIDE**

- 30 [137] **SCREENING FOR ANTIGENIC PEPTIDES:**

[138] As noted elsewhere herein, the present invention provides antigenic peptides and antibodies that are specific for a particular GPCR. The invention also provides systems and

methods for using or detecting such peptides, and antibodies against such peptides or corresponding GPCRs in a sample. The assays are based on the detection of the antigenic peptides, typically as they are displayed by the particular GPCR, or the detection of antibodies produced against the particular antigenic peptides and corresponding GPCRs.

5 **[139] SCREENING FOR/WITH ANTIGENIC PEPTIDES:**

[140] Many assays are characterized by the ability of antigenic peptides for a particular GPCR to be bound by antibodies against them, and the ability of antibodies produced against such antigenic peptides to bind to antigens or epitopes of the particular GPCR in a sample. Some exemplary assays are described below and elsewhere herein.

10 **[141] LIST OF ASSAYS:**

[142] A variety of assays can detect antibodies that bind specifically to the desired protein in or from a sample, or detect a desired protein bound to one or more antibodies in or from the sample. Exemplary assays are described in detail in *Antibodies: A Laboratory Manual*, Harlow and Lane (eds.), Cold Spring Harbor Laboratory Press (1988). Representative
15 examples of such assays include: countercurrent immuno-electrophoresis (CIEP), radioimmunoassays, radioimmunoprecipitations, enzyme-linked immunosorbent assays (ELISA), dot blot assays, inhibition or competition assays, sandwich assays, immunostick (dip-stick) assays, simultaneous assays, immunochromatographic assays, immunofiltration assays, latex bead agglutination assays, immunofluorescent assays, biosensor assays, and
20 low-light detection assays. See U.S. Pat. Nos. 4,376,110 and 4,486,530; WO 94/25597; WO/25598.

[143] ENZYME-LINKED IMMUNOSORBENT ASSAYS (ELISA):

[144] One assay for the detection of a particular GPCR is a sandwich assay such as an enzyme-linked immunosorbent assay (ELISA). In one preferred embodiment, the ELISA
25 comprises the following steps: (1) coating the particular GPCR antigenic peptide onto a solid phase, (2) incubating a sample suspected of containing anti-particular GPCR antibodies with the antigenic peptide coated onto the solid phase under conditions that allow the formation of an antigen-antibody complex, (3) adding an anti-antibody (such as anti-IgG) conjugated with a label to be captured by the resulting antigen-antibody complex bound to the solid phase,
30 and (4) measuring the captured label and determining therefrom whether the sample contains anti-particular GPCR antibodies.

[145] IMMUNOFLUORESCENCE ASSAY:

[146] A fluorescent antibody test (FA-test) uses a fluorescently labeled antibody able to bind to one of the proteins of the invention. For detection, visual determinations are made by a technician using fluorescence microscopy, yielding a qualitative result. In one embodiment, this assay is used for the examination of tissue samples or histological sections.

5 [147] **BEAD AGGLUTINATION ASSAYS:**

[148] In latex bead agglutination assays, antibodies to one or more of the antigenic peptides of the present invention are conjugated to latex beads. The antibodies conjugated to the latex beads are then contacted with a sample under conditions permitting the antibodies to bind to desired proteins in the sample, if any. The results are then read visually, yielding a qualitative result. In some embodiments, as with certain other assays, this format can be used in the field for on-site testing.

[149] **ENZYME IMMUNOASSAYS:**

[150] Enzyme immunoassays (EIA) include a number of different assays that can use the antibodies described in the present application. For example, a heterogeneous indirect EIA uses a solid phase coupled with an antibody of the invention and an affinity purified, anti-IgG immunoglobulin preparation. The solid phase can be a polystyrene microtiter plate. The antibodies and immunoglobulin preparation are then contacted with the sample under conditions permitting antibody binding, which conditions are well known in the art. The results of such an assay can be read visually or using a device such as a spectrophotometer, such as an ELISA plate reader, to yield a quantitative result. An alternative solid phase EIA format includes plastic-coated ferrous metal beads able to be moved during the procedures of the assay by means of a magnet. Yet another alternative is a low-light detection immunoassay format. In this highly sensitive format, the light emission produced by appropriately labeled bound antibodies are quantified automatically. Preferably, the reaction is performed using microtiter plates.

[151] In an alternative embodiment, a radioactive tracer is substituted for the enzyme-mediated detection in an EIA to produce a radioimmunoassay (RIA).

[152] **SANDWICH ASSAY:**

[153] In a capture-antibody sandwich enzyme assay, the desired protein is bound between an antibody attached to a solid phase, preferably a polystyrene microtiter plate, and a labeled antibody. The results can be measured, for example, using a spectrophotometer, such as an ELISA plate reader.

[154] SEQUENTIAL AND SIMULTANEOUS ASSAYS:

[155] In a sequential assay format, reagents are allowed to incubate with the capture antibody in a stepwise fashion. The test sample is first incubated with the capture antibody. Following a wash step, incubation with the labeled antibody occurs. In a simultaneous assay, the two incubation periods described in the sequential assay are combined. This eliminates one incubation period plus a wash step.

[156] IMMUNOSTICK (DIP-STICK) ASSAYS:

[157] A dipstick/immunostick format is essentially an immunoassay using a polystyrene paddle or dipstick instead of a polystyrene microtiter plate as the solid phase. Reagents are the same and the format can either be simultaneous or sequential.

[158] IMMUNOCHROMATOGRAPHIC ASSAYS:

[159] In a chromatographic strip test format, a capture antibody and a labeled antibody are dried onto a chromatographic strip, which typically comprises nitrocellulose or high porosity nylon bonded to cellulose acetate. The capture antibody is usually spray dried as a line at one end of the strip. At this end, there is an absorbent material that is in contact with the strip. At the other end of the strip, the labeled antibody is deposited in a manner that prevents it from being absorbed onto the membrane. Usually, the label attached to the antibody is a latex bead or colloidal gold. The assay may be initiated by applying the sample immediately in front of the labeled antibody.

[160] IMMUNOFILTRATION ASSAYS:

[161] Immunofiltration/immunoconcentration formats combine a large solid-phase surface with directional flow of sample/reagents, which concentrates and accelerates the binding of antigen to antibody. In an exemplary format, the test sample is preincubated with a labeled antibody, and then applied to a solid phase such as fiber filters, nitrocellulose membranes, or the like. The solid phase can also be precoated with latex or glass beads coated with capture antibody. Detection of analyte is the same as that in a standard immunoassay. The flow of sample/reagents can be modulated by either vacuum or the wicking action of an underlying absorbent material.

[162] BIOSENSOR ASSAYS:

[163] A threshold biosensor assay is a sensitive, instrumented assay amenable to screening large numbers of samples at low cost. In one embodiment, such an assay comprises the use of light-addressable potentiometric sensors wherein the reaction involves

the detection of a pH change due to binding of the desired protein by capture antibodies, bridging antibodies, and urease-conjugated antibodies. Upon binding, a pH change is effected that is measurable by translation into electrical potential (μ volts). The assay typically occurs in a very small reaction volume, and is very sensitive; the reported detection
5 limit of the assay is 1,000 molecules of urease per minute.

2. ANTIBODIES

[164] ANTIBODIES GENERATED AGAINST A PARTICULAR ANTIGENIC PEPTIDE AND ITS CORRESPONDING GPCR:

10 **[165]** Highly specific, high affinity or antibodies against a particular GPCR or other polypeptide can be generated using the antigenic peptides herein and using antibody generation techniques as described herein or elsewhere. The antibodies produced using the antigenic peptides of the present invention, for example, have a specificity for the corresponding GPCR such that the antibodies can selectively detect the corresponding GPCR
15 in a sample containing non-desired or contaminating proteins or polypeptides, such as a tissue or blood sample. Preferably, the antibodies have a high specificity such that no significant amounts of such proteins or polypeptides are detected, and further preferably have a specificity such that only insubstantial to essentially zero amounts of non-desirable proteins are detected. The antibodies produced using the antigenic peptides of the present invention,
20 for example, typically have an affinity or avidity constant (K_a) of at least about 10^7 liters/mole, typically a high affinity or avidity at least about 10^9 liters/mole, preferably at least about 10^{10} liters/mole, and further preferably at least about 10^{11} liters/mole.

[166] The antibodies can be used to conduct immunohistochemistry and other analyses of a variety of tissue samples to determine expression of a particular GPCR in such tissues, for
25 diagnostic assays, and for other desired purposes. The specification will now discuss a variety of antibody types, methods, uses, etc.

[167] ANTIBODIES GENERALLY:

[168] In some embodiments, the present invention provides antibodies and other binding partners created using the antigenic peptides herein and directed to a particular GPCR from
30 which the antigenic peptides were derived. Compositions and uses for such antibodies are contemplated, including diagnostic, medicament, and therapeutic uses. Various diagnostic, medicament, and therapeutic uses for antibodies have been reviewed above and, for example,

in Goldenberg et al., Semin. Cancer Biol., 1(3):217-225 (1990); Beck et al., Semin. Cancer Biol., 1(3):181-188 (1990); Niman, Immunol. Ser., 53:189-204 (1990); Endo, Nippon Igaku Hoshasen Gakkai Zasshi (Japan), 50(8):901-909 (1990); and, U.S. Pat. No. 6,214,984.

[169] Recognized immunoglobulin genes include the kappa, lambda, alpha, gamma, delta, epsilon, and mu constant region genes, as well as myriad immunoglobulin variable region genes. Light chains are classified as either kappa or lambda. Heavy chains are classified as gamma, mu, alpha, delta, or epsilon, which in turn define the immunoglobulin classes, IgG, IgM, IgA, IgD, and IgE, respectively. An exemplary immunoglobulin (antibody) structural unit comprises a tetramer. Each tetramer is composed of two identical pairs of antigenic peptide chains, each pair having one "light" chain (about 25 kD) and one "heavy" chain (about 50-70 kD). The N-terminus of each chain defines a variable region of about 100 to 110 or more amino acids primarily responsible for antigen recognition. The terms variable light chain (V_L) and variable heavy chain (V_H) refer to these light and heavy chains respectively.

15 [170] **ANTI-IDIOTYPIC ANTIBODIES:**

[171] The present invention encompasses anti-idiotypic antibodies, including polyclonal and monoclonal anti-idiotypic antibodies, that are produced using the antibodies described herein as antigens. These anti-idiotypic antibodies are useful because they may mimic the structures of the antigenic peptides set forth herein.

20 [172] Techniques for producing antibodies, including antibody fragments, include the following.

a. Antibody Preparation

(i) Polyclonal Antibodies

25 [173] **ANTIBODY PREP - POLYCLONAL:**

[174] Polyclonal antibodies are generally raised in animals by multiple subcutaneous (sc) or intraperitoneal (ip) injections of the relevant antigen and an adjuvant. It may be useful to conjugate the relevant antigen to a protein that is immunogenic in the species to be immunized, *e.g.*, keyhole limpet hemocyanin, serum albumin, bovine thyroglobulin, or soybean trypsin inhibitor, using a bifunctional or derivatizing agent, for example, 30 maleimidobenzoyl sulfosuccinimide ester (conjugation through cysteine residues), N-

hydroxysuccinimide (through lysine residues), glutaraldehyde, succinic anhydride, SOCl_2 , or $\text{R}^1\text{N}=\text{C}=\text{NR}$, where R and R^1 are different alkyl groups.

[175] ANTIBODY PREP – ADJUVANTS (ALL ABS):

[176] Suitable adjuvants for the vaccination of animals for the production of polyclonal, monoclonal, and other antibodies include but are not limited to Adjuvant 65 (containing peanut oil, mannide monooleate, and aluminum monostearate); Freund's complete or incomplete adjuvant; mineral gels such as aluminum hydroxide, aluminum phosphate, and alum; surfactants such as hexadecylamine, octadecylamine, lysolecithin, dimethyldioctadecylammonium bromide, N,N-dioctadecyl-N',N'-bis(2-hydroxymethyl)propanediamine, methoxyhexadecylglycerol, and pluronic polyols; polyanions such as pyran, dextran sulfate, poly IC, polyacrylic acid, and carbopol; peptides such as muramyl dipeptide, dimethylglycine, tuftsin, stress proteins, core-containing proteins from a positive stranded RNA virus, *see* US Pat. No. 6,153,378; and, oil emulsions. The antigenic peptides could also be administered following incorporation into liposomes or other microcarriers.

[177] Information concerning adjuvants and various aspects of immunoassays are disclosed, *e.g.*, in the series by P. Tijssen, Practice and Theory of Enzyme Immunoassays, 3rd Edition (1987), Elsevier, New York. Other useful references covering methods for preparing polyclonal antisera include Microbiology, Hoeber Medical Division, Harper and Row (1969); Landsteiner, Specificity of Serological Reactions, Dover Publications, New York (1962); and, Williams, et al., Methods in Immunology and Immunochemistry, Vol. 1, Academic Press, New York (1967).

[178] Animals can be immunized against the antigen, immunogenic conjugates, or derivatives by combining 1 mg or 1 μg of the peptide or conjugate (for rabbits or mice, respectively) with 3 volumes of Freund's complete adjuvant and injecting the solution intradermally at multiple sites. One month later the animals are boosted with 1/5 to 1/10 the original amount of peptide or conjugate in Freund's complete adjuvant by subcutaneous injection at multiple sites. Seven to 14 days later the animals are bled and the serum is assayed for antibody titer. Animals are boosted until the titer plateaus. Preferably, the animal is boosted with the conjugate of the same antigen, but conjugated to a different protein or through a different cross-linking reagent. Conjugates also can be made in recombinant cell culture as protein fusions. In addition, aggregating agents such as alum can be suitably used to enhance the immune response.

(ii) Monoclonal Antibodies

[179] ANTIBODY PREP - MONOCLONAL:

[180] Monoclonal antibodies are obtained from a population of substantially homogeneous antibodies, *e.g.*, the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present in minor amounts. For example, monoclonal antibodies can be made using the hybridoma method first described by Kohler and Milstein, *Nature*, 256:495 (1975), or can be made by recombinant DNA methods, or otherwise as desired.

[181] In the hybridoma method, a mouse, or other appropriate host animal, such as a hamster, is immunized as described herein to elicit lymphocytes that produce or are capable of producing antibodies that will bind specifically to the antigenic peptide used for immunization. Alternatively, lymphocytes may be immunized *in vitro*. Lymphocytes then are fused with myeloma cells using a suitable fusing agent, such as polyethylene glycol, to form a hybridoma cell, Goding, *Monoclonal Antibodies: Principles and Practice*, pp. 59-103, Academic Press (1986).

[182] The hybridoma cells thus prepared are seeded and grown in a suitable culture medium that preferably contains one or more substances that inhibit the growth or survival of the unfused, parental myeloma cells. For example, if the parental myeloma cells lack the enzyme hypoxanthine guanine phosphoribosyl transferase (HGPRT or HPRT), the culture medium for the hybridomas typically will include hypoxanthine, aminopterin, and thymidine (HAT medium), which substances prevent the growth of HGPRT-deficient cells.

[183] Preferred myeloma cells are those that fuse efficiently, support stable high-level production of antibody by the selected antibody-producing cells, and are sensitive to a medium such as HAT medium, for example murine myeloma lines, such as those derived from MOPC-21 and MPC-11 mouse tumors available from the Salk Institute Cell Distribution Center, San Diego, CA USA, and SP-2 cells available from the American Type Culture Collection, Rockville, MD USA. Human myeloma and mouse-human heteromyeloma cell lines have also been described for the production of human monoclonal antibodies, Kozbor, *J. Immunol.*, 133:3001 (1984); Brodeur et al., *Monoclonal Antibody Production Techniques and Applications*, pp. 51-63, Marcel Dekker, Inc., New York (1987).

[184] Culture medium in which hybridoma cells are growing is assayed for production of monoclonal antibodies directed against the antigenic peptide. The binding specificity of monoclonal antibodies produced by hybridoma cells can be determined by immunoprecipitation or by an *in vitro* binding assay, such as radioimmunoassay (RIA) or enzyme-linked immunosorbent assay (ELISA). The binding affinity of the monoclonal antibody can, for example, be determined by the Scatchard analysis of Munson and Pollard, Anal. Biochem., 107:220 (1980). The antibodies produced using the antigenic peptides of the present invention, for example, typically have an affinity or avidity constant (K_a) of at least about 10^7 liters/mole, typically a high affinity or avidity at least about 10^9 liters/mole, preferably at least about 10^{10} liters/mole, and further preferably at least about 10^{11} liters/mole.

[185] After hybridoma cells are identified that produce antibodies of the desired specificity, affinity, or activity, the clones may be subcloned by limiting dilution procedures and grown by standard methods (Goding, *supra*). Suitable culture media for this purpose include, for example, D-MEM or RPMI-1640 medium. In addition, the hybridoma cells may be grown *in vivo* as ascites tumors in an animal.

[186] The monoclonal antibodies secreted by the subclones are suitably separated from the culture medium, ascites fluid, or serum by conventional immunoglobulin purification procedures such as, for example, protein A-SEPHAROSETM, hydroxyapatite chromatography, gel electrophoresis, dialysis, or affinity chromatography.

[187] DNA encoding the monoclonal antibodies can be readily isolated and sequenced using conventional procedures (*e.g.*, by using oligonucleotide probes that are capable of binding specifically to genes encoding the heavy and light chains of murine antibodies). The hybridoma cells serve as a preferred source of such DNA. Once isolated, the DNA may be placed into expression vectors, which can then be transfected into host cells such as *E. coli* cells, simian COS cells, Chinese hamster ovary (CHO) cells, or myeloma cells that do not otherwise produce immunoglobulin protein, to obtain the synthesis of monoclonal antibodies in the recombinant host cells. Review articles on recombinant expression in bacteria of DNA encoding antibody include Skerra et al., Curr. Opinion in Immunol., 5:256-262 (1993), and Pluckthun, Immunol. Revs., 130:151-188 (1992).

[188] **MOABS - COMBINATORIAL:**

[189] In a further embodiment, antibodies or antibody fragments can be isolated from antibody phage libraries generated using the techniques described in McCafferty et al.,

Nature, 348:552-554 (1990), using the proper antigen such as CD11a, CD18, IgE, or HER-2 to select for a suitable antibody or antibody fragment. Clackson et al., Nature, 352:624-628 (1991) and Marks et al., J. Mol. Biol., 222:581-597 (1991) describe the isolation of murine and human antibodies, respectively, using phage libraries. Subsequent publications describe the production of high affinity (nM range) human antibodies by chain shuffling, Marks et al., Biotechnology, 10:779-783 (1992), as well as combinatorial infection and *in vivo* recombination as strategies for constructing very large phage libraries, Waterhouse et al., Nuc. Acids. Res., 21:2265-2266 (1993). Combinatorial antibodies are also discussed in Huse et al., Science 246:1275-1281 (1989), and Sastry et al., Proc. Natl. Acad. Sci. USA, 86:5728-5732 (1989), and Alting-Mees et al., Strategies in Molecular Biology 3:1-9 (1990). These references describe a system commercially available from Stratacyte, La Jolla, CA USA. Briefly, mRNA is isolated from a B cell population and utilized to create heavy and light chain immunoglobulin cDNA expression libraries in the λ IMMUNOZAP(H) and λ IMMUNOZAP(L) vectors. These vectors may be screened individually or co-expressed to form Fab fragments or antibodies, *see* Huse et al., *supra*; *see also* Sastry et al., *supra*. Positive plaques can subsequently be converted to a non-lytic plasmid, which allows for high-level expression of monoclonal antibody fragments from *E. coli*.

[190] HUMANIZED MOAB:

[191] Binding partners can also be constructed utilizing recombinant DNA techniques to incorporate the variable regions of a gene that encode a specifically binding antibody. The construction of these binding partners can be readily accomplished by one of ordinary skill in the art in view of the present application. *See* Larrick et al., Biotechnology, 7:934-938 (1989); Riechmann et al., Nature, 332:323-327 (1988); Roberts et al., Nature, 328:731-734 (1987); Verhoeyen et al., Science 239:1534-1536 (1988); Chaudhary et al., Nature, 339:394-397 (1989); *see also* U.S. Pat. No. 5,132,405 entitled "Biosynthetic Antibody Binding Sites".) For example, the DNA can be modified by substituting the coding sequence for human heavy- and light-chain constant domains in place of homologous murine sequences, U.S. Pat. No. 4,816,567; Morrison, et al., Proc. Nat. Acad. Sci., 81:6851 (1984), or by covalently joining to the immunoglobulin coding sequence all or part of the coding sequence for a non-immunoglobulin polypeptide. In another example, DNA segments encoding the desired antigen-binding domains specific for the protein or peptide of interest are amplified from appropriate hybridomas and inserted directly into the genome of a cell that produces human

antibodies. See Verhoeyen et al., *supra*; see also Reichmann et al., *supra*. Some of these techniques transfer the antigen-binding site of a specifically binding mouse or rat monoclonal antibody or the like to a human antibody. Such antibodies can be preferable for therapeutic use in humans because they are typically not as antigenic as rat or mouse antibodies.

- 5 [192] In an alternative embodiment, genes that encode the variable region from a hybridoma producing a monoclonal antibody of interest can be amplified using oligonucleotide primers for the variable region. These primers may be synthesized by one of ordinary skill in the art, or may be purchased from commercially available sources. For instance, primers for mouse and human variable regions including, among others, primers for
- 10 V_HA, V_HB, V_HC, V_HD, C_H1, V_L, and C_L regions are available from Stratacyte (La Jolla, CA). These primers may be utilized to amplify heavy- or light-chain variable regions, which may then be inserted into vectors such as IMMUNOZAPTM(H) or IMMUNOZAPTM(L) (Stratacyte), respectively. These vectors may then be introduced into *E. coli* for expression. Utilizing these techniques, large amounts of a single-chain protein containing a fusion of the
- 15 V_H and V_L domains may be produced, see Bird et al., Science 242:423-426 (1988).

[193] ANTIBODY SUBSTITUTIONS - NON-IMMUNOGLOBULIN POLYPEPTIDES (ALL ABS):

- [194] Non-immunoglobulin polypeptides can be substituted in monoclonal and other antibodies described herein for the constant domains of an antibody, or they can be
- 20 substituted for the variable domains of one antigen-combining site of an antibody to create a chimeric bivalent antibody comprising one antigen-combining site having specificity for an antigen and another antigen-combining site having specificity for a different antigen.

[195] CHIMERICS:

- [196] Chimeric or hybrid antibodies can also be prepared *in vitro* using known methods in
- 25 synthetic protein chemistry, including those involving crosslinking agents, in view of the present application. For example, immunotoxins may be constructed using a disulfide-exchange reaction or by forming a thioether bond. Examples of suitable reagents for this purpose include iminothiolate and methyl-4-mercaptobutyrimidate.

[197] ANTIBODY LABELING (ALL ABS):

- 30 [198] For diagnostic applications or otherwise as desired, and for monoclonal and other antibodies described herein, the antibodies and other binding partners typically will be labeled with a detectable moiety. The detectable moiety can be any moiety that is capable of

producing, either directly or indirectly, a detectable signal. For example, the detectable moiety may be a radioisotope, such as ^3H , ^{14}C , ^{32}P , ^{35}S , or ^{125}I ; a fluorescent or chemiluminescent compound, such as fluorescein isothiocyanate, rhodamine, or luciferin; or an enzyme, such as alkaline phosphatase, beta-galactosidase, or horseradish peroxidase. Any method known in the art for conjugating the antibody or binding partner to the detectable moiety may be employed, including those methods described by Hunter et al., *Nature*, 144:945 (1962); David et al., *Biochemistry*, 13:1014 (1974); Pain et al., *J. Immunol. Meth.*, 40:219 (1981); and Nygren, *J. Histochem. Cytochem.*, 30:407 (1982).

10 (iii) Humanized And Human Antibodies

[199] HUMANIZED AB GENERALLY:

[200] Methods for humanizing non-human antibodies are well known in the art and have been discussed in part above. Generally, a humanized antibody has one or more amino acid residues introduced into it from a source which is non-human. These non-human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable domain. Humanization can be performed essentially following the method of Winter and co-workers, Jones et al., *Nature*, 321:522-525 (1986); Riechmann et al., *Nature*, 332:323-327 (1988); Verhoeven et al., *Science*, 239:1534-1536 (1988), by substituting rodent CDRs or CDR sequences for the corresponding sequences of a human antibody. Accordingly, such humanized antibodies are chimeric antibodies, U.S. Pat. No. 4,816,567, wherein substantially less than an intact human variable domain has been substituted by the corresponding sequence from a non-human species. In practice, humanized antibodies are typically human antibodies in which some CDR residues and possibly some FR residues are substituted by residues from analogous sites in rodent antibodies.

25 [201] The choice of human variable domains, both light and heavy, to be used in making humanized antibodies is very important to reduce antigenicity. According to the so-called "best-fit" method, the sequence of the variable domain of a rodent antibody is screened against the entire library of known human variable-domain sequences. The human sequence that is closest to that of the rodent is then accepted as the human framework (FR) for the humanized antibody. Sims et al., *J. Immunol.*, 151:2296 (1993); Chothia and Lesk, *J. Mol. Biol.*, 196:901 (1987). Another method uses a particular framework derived from the consensus sequence of all human antibodies of a particular subgroup of light or heavy chains.

The same framework may be used for several different humanized antibodies. Carter et al., Proc. Natl. Acad. Sci. USA, 89:4285 (1992); Presta et al., J. Immunol., 151:2623 (1993).

[202] It is typically desirable that antibodies be humanized with retention of high affinity for the antigen and other favorable biological properties. To achieve this goal, according to one method, humanized antibodies are prepared by a process of analysis of the parental sequences and various conceptual humanized products using three-dimensional models of the parental and humanized sequences. Three-dimensional immunoglobulin models are commonly available and are familiar to those skilled in the art. Computer programs are available that illustrate and display probable three-dimensional conformational structures of selected candidate immunoglobulin sequences. Inspection of these displays permits analysis of the likely role of the residues in the functioning of the candidate immunoglobulin sequence, *e.g.*, the analysis of residues that influence the ability of the candidate immunoglobulin to bind antigen. In this way, FR residues can be selected and combined from the consensus and import sequences so that the desired antibody characteristic, such as increased affinity for the target antigen(s), is achieved. In general, CDR residues are directly and most substantially involved in influencing antigen binding.

[203] It is also possible to produce transgenic animals (*e.g.*, mice) that are capable, upon immunization, of producing a full repertoire of human antibodies in the absence of endogenous immunoglobulin production. For example, it has been described that the homozygous deletion of the antibody heavy-chain joining region (J_H) gene in chimeric and germ-line mutant mice results in complete inhibition of endogenous antibody production. Transfer of the human germ-line immunoglobulin gene array in such germ-line mutant mice will result in the production of human antibodies upon antigen challenge. *See, e.g.*, Jakobovits et al., Proc. Natl. Acad. Sci. USA. 90:2551-255 (1993); Jakobovits et al., Nature, 362:255-258 (1993); Bruggemann et al., Year Immuno., 7:33 (1993). Human antibodies can also be produced in phage-display libraries, Hoogenboom and Winter, J. Mol. Biol., 227:381 (1991); Marks et al., J. Mol. Biol., 222:581 (1991).

(iv) Antibody Fragments

[204] **ANTIBODY FRAGMENTS:**

[205] Various techniques have been developed for the production of antibody fragments. Such fragments can be derived via proteolytic digestion of intact antibodies, *see, e.g.*,

Morimoto et al., J. Biochem. Biophys. Meth. 24:107-117 (1992) and Brennan et al., Science, 229:81 (1985). Fragments can also be produced directly by recombinant host cells. For example, antibody fragments can be isolated from antibody phage libraries discussed above. Fab'-SH fragments can be directly recovered from *E. coli* and chemically coupled to form F(ab')₂ fragments, Carter et al., Biotechnology 10:163-167 (1992). F(ab')₂ fragments can be isolated directly from recombinant host cell culture. Other techniques for the production of antibody fragments will be apparent to the skilled practitioner.

(v) Bispecific Antibodies

10 [206] **BISPECIFIC ANTIBODIES GENERALLY:**

[207] Bispecific antibodies (BsAbs) are antibodies that have binding specificities for at least two different antigens. Bispecific antibodies can be derived from full-length antibodies or from antibody fragments, e.g., F(ab')₂ bispecific antibodies.

[208] Methods for making bispecific antibodies are known in the art. Traditional
15 production of full-length bispecific antibodies is based on the coexpression of two immunoglobulin heavy chain-light chain pairs, where the two chains have different specificities, Millstein and Cuello, Nature, 305:537-539 (1983). Because of the random assortment of immunoglobulin heavy and light chains, these hybridomas (quadromas) produce a mixture of potentially 10 different antibody molecules, of which only one has the
20 correct bispecific structure. Purification of the correct molecule, which is usually accomplished by affinity chromatography steps, is rather cumbersome, and the product yields are low. Similar procedures are disclosed in WO 93/08829, and in Traunecker et al., E.M.B.O.J., 10:3655-3659 (1991).

[209] According to another approach, antibody variable domains containing the desired
25 binding specificities (antibody-antigen combining sites) are fused to immunoglobulin constant domain sequences. The fusion is preferably with an immunoglobulin heavy chain constant domain, comprising at least part of the hinge, C_H 2, and C_H 3 regions. It is preferred to have the first heavy-chain constant region (C_H 1) containing the site necessary for light chain binding, present in at least one of the fusions. DNAs encoding the immunoglobulin
30 heavy chain fusions and, if desired, the immunoglobulin light chain, are inserted into separate expression vectors, and are co-transfected into a suitable host organism. This provides for great flexibility in adjusting the mutual proportions of the three polypeptide fragments in

embodiments when unequal ratios of the three polypeptide chains used in the construction provide the improved yields. It is, however, possible to insert the coding sequences for two or all three polypeptide chains in one expression vector when the expression of at least two polypeptide chains in equal ratios results in high yields or when the ratios are of no particular significance.

[210] ANTIBODIES - HYBRID IMMUNOGLOBULIN HEAVY CHAIN:

[211] In one embodiment of this approach, the bispecific antibodies are composed of a hybrid immunoglobulin heavy chain with a first binding specificity in one arm, and a hybrid immunoglobulin heavy chain-light chain pair (providing a second binding specificity) in the other arm. This asymmetric structure may facilitate the separation of the desired bispecific compound from unwanted immunoglobulin chain combinations, as the presence of an immunoglobulin light chain in only one half of the bispecific molecule provides for a facile method of separation. This approach is discussed in WO 94/04690. For further details of generating bispecific antibodies see, for example, Suresh et al., Meth. Enzymol., 121:210 (1986).

[212] ANTIBODIES - CROSS-LINKED OR "HETEROCONJUGATE":

[213] Bispecific antibodies include cross-linked or "heteroconjugate" antibodies. For example, one of the antibodies in the heteroconjugate can be coupled to avidin, the other to biotin. Such antibodies have, for example, been proposed to target immune system cells to unwanted cells, U.S. Pat. No. 4,676,980), and for treatment of HIV infection, WO 91/00360, WO 92/200373, and EP 03089). Heteroconjugate antibodies may be made using any convenient cross-linking methods. Suitable cross-linking agents are well known in the art, and are disclosed in U.S. Pat. No. 4,676,980, along with a number of cross-linking techniques.

[214] ANTIBODIES - DIABODIES:

[215] The "diabody" technology described by Hollinger et al., Proc. Natl. Acad. Sci. USA, 90:6444-6448 (1993) has provided an alternative mechanism for making BsAb fragments. The fragments comprise a heavy-chain variable domain (V_H) connected to a light-chain variable domain (V_L) by a linker that is too short to allow pairing between the two domains on the same chain. Accordingly, the V_H and V_L domains of one fragment are forced to pair with the complementary V_L and V_H domains of another fragment, thereby forming two antigen-binding sites.

[216] Another strategy for making BsAb fragments by the use of single-chain Fv (sFv) dimers has also been reported. See Gruber et al., J. Immunol., 152:5368 (1994). These researchers designed an antibody comprising the V_H and V_L domains of a first antibody joined by a 25-amino-acid-residue linker to the V_H and V_L domains of a second antibody.

- 5 The refolded molecule bound to fluorescein and the T-cell receptor and redirected the lysis of human tumor cells that had fluorescein covalently linked to their surface.

[217] **ANTIBODIES - OTHER:**

- [218] Techniques for generating bispecific antibodies from antibody fragments have also been described in the literature. For example, bispecific antibodies can be prepared using chemical linkage. Brennan et al., Science, 229:81 (1985) describe a procedure wherein intact
10 antibodies are proteolytically cleaved to generate F(ab')₂ fragments. These fragments are reduced in the presence of the dithiol complexing agent sodium arsenite to stabilize vicinal dithiols and prevent intermolecular disulfide formation. The Fab' fragments generated are then converted to thionitrobenzoate (TNB) derivatives. One of the Fab'-TNB derivatives is
15 then reconverted to the Fab'-thiol by reduction with mercaptoethylamine and is mixed with an equimolar amount of the other Fab'-TNB derivative to form the BsAb. The BsAbs produced can be used as agents for the selective immobilization of enzymes.

- [219] Fab'-SH fragments can be directly recovered from *E. coli*, which can be chemically coupled to form bispecific antibodies. Shalaby et al., J. Exp. Med., 175:217-225 (1992)
20 describe the production of a fully humanized BsAb F(ab')₂ molecule. Each Fab' fragment was separately secreted from *E. coli* and subjected to directed chemical coupling *in vitro* to form the BsAb. The BsAb thus formed was able to bind to cells overexpressing the HER2 receptor and normal human T cells, as well as trigger the lytic activity of human cytotoxic lymphocytes against human breast tumor targets. See also Rodriguez et al., Int. J. Cancers
25 (Suppl.) 7:45-50 (1992).

- [220] Various techniques for making and isolating BsAb fragments directly from recombinant cell culture have also been described. For example, bispecific F(ab')₂ heterodimers have been produced using leucine zippers. Kostelny et al., J. Immunol., 148(5):1547-1553 (1992). The leucine zipper peptides from the Fos and Jun proteins are
30 linked to the Fab' portions of two different antibodies by gene fusion. The antibody homodimers are reduced at the hinge region to form monomers and then re-oxidized to form the antibody heterodimers.

b. Antibody Purification

[221] ANTIBODY PURIFICATION GENERALLY:

[222] When using recombinant techniques, the antibody can be produced intracellularly, in the periplasmic space, or directly secreted into the medium. If the antibody is produced intracellularly, as a first step, the particulate debris, either host cells or lysed fragments, is removed, for example, by centrifugation or ultrafiltration. Carter et al., Bio/Technology 10:163-167 (1992), describe a procedure for isolating antibodies which are secreted to the periplasmic space of *E. coli*. Briefly, cell paste is thawed in the presence of sodium acetate (pH 3.5), EDTA, and phenylmethylsulfonylfluoride (PMSF) over about 30 min. Cell debris can be removed by centrifugation. Where the antibody is secreted into the medium, supernatants from such expression systems are generally first concentrated using a commercially available protein concentration filter, for example, an Amicon or Millipore Pellicon ultrafiltration unit. A protease inhibitor such as PMSF may be included in any of the foregoing steps to inhibit proteolysis and antibiotics may be included to prevent the growth of adventitious contaminants.

[223] BEFORE LPHIC:

[224] The antibody composition prepared from the cells is preferably subjected to at least one purification step prior to LPHIC. Examples of suitable purification steps include hydroxyapatite chromatography, gel electrophoresis, dialysis, and affinity chromatography. The suitability of protein A as an affinity ligand depends on the species and isotype of any immunoglobulin Fc domain that is present in the antibody. Protein A can be used to purify antibodies that are based on human $\gamma 1$, $\gamma 2$, or $\gamma 4$ heavy chains, Lindmark et al., J. Immunol. Meth. 62:1-13 (1983). Protein G has been recommended for mouse isotypes and for human $\gamma 3$, Guss et al., E.M.B.O. J., 5:1567-1575 (1986). The matrix to which the affinity ligand is attached is often agarose, but other matrices are available. Mechanically stable matrices such as controlled pore glass or poly(styrenedivinyl)benzene allow for faster flow rates and shorter processing times than can be achieved with agarose. Where the antibody comprises a $C_H 3$ domain, the Bakerbond ABXTM resin (J. T. Baker, Phillipsburg, N.J.) is useful for purification. Other techniques for protein purification such as fractionation on an ion-exchange column, ethanol precipitation, Reverse Phase HPLC, chromatography on silica, chromatography on heparin SEPHAROSETM, chromatography on an anion or cation

exchange resin (such as a polyaspartic acid column), chromatofocusing, SDS-PAGE, and ammonium sulfate precipitation are also available depending on the antibody to be recovered.

[225] LPHIC:

[226] Following any preliminary purification step(s), the mixture comprising the antibody of interest and contaminant(s) can be subjected to LPHIC. See US Patent No. 6,214,984. Often, the antibody composition to be purified will be present in a buffer from the previous purification step. However, it may be necessary to add a buffer to the antibody composition prior to the LPHIC step. Many buffers are available and can be selected by routine experimentation. The pH of the mixture comprising the antibody to be purified and at least one contaminant in a loading buffer is adjusted to a pH of about 2.5-4.5 using either an acid or base, depending on the starting pH. The loading buffer can have a low salt concentration (e.g., less than about 0.25 M salt).

[227] The mixture is loaded on the HIC column. HIC columns normally comprise a base matrix (e.g., cross-linked agarose or synthetic copolymer material) to which hydrophobic ligands (e.g., alkyl or aryl groups) are coupled. One example of an HIC column comprises an agarose resin substituted with phenyl groups (e.g., a Phenyl SEPHAROSE™ column). Many HIC columns are available commercially. Examples include, but are not limited to, Phenyl SEPHAROSE 6 FAST FLOW™ column with low or high substitution (Pharmacia LKB Biotechnology, AB, Sweden); Phenyl SEPHAROSE™ High Performance column (Pharmacia LKB Biotechnology, AB, Sweden); Octyl SEPHAROSE™ High Performance column (Pharmacia LKB Biotechnology, AB, Sweden); FRACTOGEL™ EMD Propyl or FRACTOGEL™ EMD Phenyl columns (E. Merck, Germany); MACRO-PREP™ Methyl or MACRO-PREP™ t-Butyl Supports (Bio-Rad, California); WP HI-Propyl (C₃)™ column (J. T. Baker, New Jersey); and TOYOPEARL™ ether, phenyl, or butyl columns (TosoHaas, PA).

[228] The antibody is typically eluted from the column using an elution buffer that is the same as the loading buffer. The elution buffer can be selected using routine experimentation in view of the present application. The pH of the elution buffer may be between about 2.5-4.5 and have a low salt concentration (e.g., less than about 0.25 M salt). It may not be necessary to use a salt gradient to elute the antibody of interest; the desired product may be recovered in the flow-through fraction that does not bind significantly to the column.

[229] The LPHIC step provides a way to remove a correctly folded and disulfide bonded antibody from unwanted contaminants (*e.g.*, incorrectly associated light and heavy fragments). The method can provide an approach to substantially remove an impurity characterized as a correctly folded antibody fragment whose light and heavy chains fail to
5 associate through disulfide bonding. Antibody compositions prepared using LPHIC can be up to about 95% pure or more. Purities of more than about 98% have been reported. US Patent No. 6,214,984.

[230] POST LPHIC:

[231] Antibody compositions prepared by LPHIC can be further purified as desired using
10 techniques which are well known in the art. Diagnostic or therapeutic formulations of the purified protein can be made by providing the antibody composition in a physiologically acceptable carrier, examples of which are provided below. To remove contaminants (*e.g.*, unfolded antibody and incorrectly associated light and heavy fragments) from the HIC column so that it can be re-used, a composition including urea (*e.g.*, 6.0 M urea, 1% MES
15 buffer pH 6.0, 4 mM ammonium sulfate) can be flowed through the column.

c. Some Uses For Antibodies Described Herein

(i) Generally

[232] GENERALLY:

20 [233] The present invention comprises any suitable use for the antibodies and other binding partners discussed herein. The following provides some of the desired uses, including diagnostic and therapeutic uses. Various diagnostic and therapeutic uses for antibodies have been reviewed in Goldenberg et al., *Semin. Cancer Biol.*, 1(3):217-225 (1990); Beck et al., *Semin. Cancer Biol.*, 1(3):181-188 (1990); Niman, *Immunol. Ser.* 53:189-
25 204 (1990); and, Endo, *Nippon Igaku Hoshasen Gakkai Zasshi (Japan)* 50(8):901-909 (1990), for example.

[234] ASSAYS:

[235] The antibodies can be used in immunoassays, such as enzyme immunoassays. BsAbs can be useful for this type of assay; one arm of the BsAb can be designed to bind to a
30 specific epitope on the enzyme so that binding does not cause enzyme inhibition, the other arm of the antibody can be designed to bind to an immobilizing matrix ensuring a high enzyme density at the desired site. Examples of such diagnostic BsAbs include those having

specificity for IgG as well as ferritin, and those having binding specificities for horseradish peroxidase (HRP) as well as a hormone, for example. Monoclonal and polyclonal antibodies are also exemplary antibodies for immunoassays.

[236] The antibodies can be designed for use in two-site immunoassays. For example, two antibodies are produced binding to two separate epitopes on the analyte protein; one antibody binds the complex to an insoluble matrix, the other binds an indicator enzyme.

[237] **DIAGNOSTIC USES:**

[238] Antibodies can also be used for immunodiagnosis, *in vitro* or *in vivo* or otherwise, of various diseases or conditions based on the presence or absence of a particular GPCR.

10 Such diseases and conditions include, *e.g.*, immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (*e.g.*, osteoarthritis, osteoporosis), carcinoma (*e.g.*, basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne

15 muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocyoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain,

20 Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma,

30 sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and

cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved.

- 5 [239] To facilitate this diagnostic use, an antibody that binds a particular GPCR, when such is differentially expressed in tumors or other target diseases, can be conjugated with a detectable marker (*e.g.*, a chelator that binds a radionuclide). Examples of tumor-associated antigens being used in a similar fashion include an antibody having specificity for the tumor-associated antigen CEA used for imaging colorectal and thyroid carcinomas and the anti-
10 p185^{HER2} antibody used for detecting cancers characterized by amplification of the HER2 protooncogene. Other uses for the antibodies of the present invention will be apparent to the skilled practitioner in view of the present application.

(ii) Assays

15 [240] **ASSAYS:**

- [241] For certain applications such as some diagnostic and other assay applications, the antibody typically can be labeled directly or indirectly with a detectable moiety. The detectable moiety can be any moiety that is capable of producing, either directly or indirectly, a detectable signal. For example, the detectable moiety may be a radioisotope, such as ³H,
20 ¹⁴C, ³²P, ³⁵S, or ¹²⁵I; a fluorescent or chemiluminescent compound, such as fluorescein isothiocyanate, rhodamine, or luciferin; or an enzyme, such as alkaline phosphatase, beta-galactosidase, or HRP.

- [242] Any method known in the art for separately conjugating the antibody to the detectable moiety may be employed, including those methods described by Hunter et al.,
25 *Nature*, 144:945 (1962); David et al., *Biochemistry*, 13:1014 (1974); Pain et al., *J. Immunol. Meth.* 40:219 (1981); and, Nygren, *J. Histochem. and Cytochem.* 30:407 (1982).

- [243] The antibodies of the present invention may be employed in any desired assay method, such as competitive binding assays, direct, and indirect sandwich assays, and immunoprecipitation assays. Zola, *Monoclonal Antibodies: A Manual of Techniques*, pp.
30 147-158 (CRC Press, Inc. (1987).

[244] **COMPETITIVE BINDING ASSAYS:**

[245] Competitive binding assays rely on the ability of a labeled standard to compete with the test sample analyte for binding with a limited amount of antibody. The amount of analyte in the test sample is inversely proportional to the amount of standard that becomes bound to the antibody. To facilitate determining the amount of standard that becomes bound, the antibody generally is insolubilized before or after the competition, so that the standard, and analyte that are bound to the antibody may conveniently be separated from the standard, and analyte which remain unbound.

[246] BsAbs are particularly useful for sandwich assays which involve the use of two molecules, each capable of binding to a different immunogenic portion, or epitope, of the sample to be detected. In a sandwich assay, the test sample analyte is bound by a first arm of the antibody which is immobilized on a solid support, and thereafter a second arm of the antibody binds to the analyte, thus forming an insoluble three part complex. *See, e.g., U.S. Pat. No. 4,376,110.* The second arm of the antibody may itself be labeled with a detectable moiety (direct sandwich assays) or may be measured using an anti-immunoglobulin antibody that is labeled with a detectable moiety (indirect sandwich assay). For example, one type of sandwich assay is an ELISA assay, in which case the detectable moiety is an enzyme. Assays are discussed further elsewhere herein in relation to binding partners such as antibodies, and antigenic peptides for particular GPCRs, including assays searching for or using such antigenic peptides, and would be apparent to those skilled in the art in view of the present application.

(iii) Affinity Purification

[247] AFFINITY PURIFICATION:

[248] The antibodies also are useful for the affinity purification of an antigen of interest such as a particular GPCR from sources such as recombinant cell culture or natural sources.

(iv) Therapeutics

[249] THERAPEUTIC USES:

[250] Therapeutic compositions, and uses, etc., for the antibodies described herein will now be discussed. As with other parts of this application, this section does not contain the entire discussion of therapeutic uses or compositions, etc., for antibodies; other sections discuss both antibodies, and therapeutics, and the discussion in this section applies to certain

other aspects discussed herein. Turning to antibodies and therapeutics, the antibodies can be used, for example, for redirected cytotoxicity (*e.g.*, to kill tumor cells), as a vaccine adjuvant, for delivering thrombolytic agents to clots, for delivering immunotoxins to tumor cells, for converting enzyme activated prodrugs at a target site (*e.g.*, a tumor), for treating infectious
5 diseases or targeting immune complexes to cell surface receptors.

[251] THERAPEUTIC FORMULATIONS:

[252] Therapeutic formulations of the antibody can be prepared for storage by mixing the antibody having the desired degree of purity with optional physiologically acceptable carriers, excipients, or stabilizers (Remington's Pharmaceutical Sciences, 16th edition, Osol,
10 A., Ed. (1980), for example in the form of lyophilized cake or aqueous solutions. Acceptable carriers, excipients, or stabilizers are nontoxic to recipients at the dosages, and concentrations employed, and include buffers such as phosphate, citrate, and other organic acids; antioxidants including ascorbic acid; low molecular weight (less than about 10 residues) polypeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; hydrophilic
15 polymers such as polyvinylpyrrolidone; amino acids such as glycine, glutamine, asparagine, arginine, or lysine; monosaccharides, disaccharides, and other carbohydrates including glucose, mannose, or dextrans; chelating agents such as EDTA; sugar alcohols such as mannitol or sorbitol; salt-forming counterions such as sodium; or nonionic surfactants such as Tween, Pluronic, or polyethylene glycol (PEG).

[253] The antibodies also may be entrapped in microcapsules prepared, for example, by
20 coacervation techniques or by interfacial polymerization (for example, hydroxymethylcellulose or gelatin-microcapsules, and poly-[methylmethacrylate] microcapsules, respectively), in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles, and nanocapsules), or in
25 macroemulsions. Such techniques are disclosed in Remington's Pharmaceutical Sciences, *supra*.

[254] THERAPEUTIC FORMULATIONS -STERILE:

[255] An antibody to be used for *in vivo* human administration should be sterile. This can be accomplished by filtration through sterile filtration membranes, for example prior to or
30 following lyophilization and reconstitution. The antibody ordinarily will be stored in lyophilized form or in solution. Therapeutic antibody compositions generally are placed into

a container having a sterile access port, for example, an intravenous solution bag or vial having a stopper pierceable by a hypodermic injection needle.

[256] THERAPEUTIC ADMINISTRATIONS:

[257] The route of antibody administration is in accord with known methods, *e.g.*,
5 injection or infusion by intravenous, intraperitoneal, intracerebral, intramuscular, intraocular, intraarterial, or intralesional routes, or by sustained release systems as noted below.

[258] The antibody can be administered, for example, continuously by infusion or by bolus injection. Suitable examples of sustained-release preparations include semipermeable matrices of solid hydrophobic polymers containing the protein, which matrices are in the
10 form of shaped articles, *e.g.*, films, or microcapsules. Examples of sustained-release matrices include polyesters, hydrogels (*e.g.*, poly(2-hydroxyethyl-methacrylate) as described by Langer et al., J. Biomed. Mater. Res., 15:167-277 (1981), and Langer, Chem. Tech., 12:98-105 (1982), or poly(vinylalcohol)), polylactides, U.S. Pat. No. 3,773,919; EP 58,481, copolymers of L-glutamic acid and gamma ethyl-L-glutamate, Sidman et al., Biopolymers,
15 22:547-556 (1983), non-degradable ethylene-vinyl acetate, Langer et al., *supra*, degradable lactic acid-glycolic acid copolymers such as the LUPRON DEPOT™ (injectable microspheres composed of lactic acid-glycolic acid copolymer and leuprolide acetate), and poly-D-(-)-3-hydroxybutyric acid, EP 133,988.

**[259] THERAPEUTIC ADMINISTRATIONS - SUSTAINED RELEASE-
20 POLYMERS:**

[260] While polymers such as ethylene-vinyl acetate and lactic acid-glycolic acid sustain release of molecules for over 100 days, certain hydrogels release proteins for shorter time periods. When encapsulated antibodies remain in the body for a long time, they may denature or aggregate as a result of exposure to moisture at 37°C, resulting in a loss of
25 biological activity and possible changes in immunogenicity. Rational strategies can be devised for antibody stabilization depending on the mechanism involved. For example, if the aggregation mechanism is discovered to be intermolecular S-S bond formation through thio-disulfide interchange, stabilization may be achieved by modifying sulfhydryl residues, lyophilizing from acidic solutions, controlling moisture content, using appropriate additives,
30 and developing specific polymer matrix compositions.

[261] THERAPEUTIC ADMINISTRATIONS - SUSTAINED RELEASE-LIPOSOMES:

[262] Sustained-release antibody compositions also include liposomally entrapped antibody. Liposomes containing the antibody can be prepared by methods such as those in DE 3,218,121; Epstein et al., Proc. Natl. Acad. Sci. USA, 82:3688-3692 (1985); Hwang et al., Proc. Natl. Acad. Sci. USA, 77:4030-4034 (1980); EP 52,322; EP 36,676; EP 88,046; EP 143,949; EP 142,641; Japanese patent application 83-118008; U.S. Pat. Nos. 4,485,045 and 4,544,545; and EP 102,324. Ordinarily the liposomes are of the small (about 200-800 Angstroms) unilamellar type in which the lipid content is greater than about 30 mol. % cholesterol, the selected proportion being adjusted for the optimal antibody therapy.

[263] THERAPEUTICALLY EFFECTIVE AMOUNT:

10 [264] An effective amount of antibody to be employed therapeutically will depend, for example, upon the therapeutic objectives, the route of administration, and the condition of the patient. Accordingly, it will be necessary for the therapist to titer the dosage and modify the route of administration as required to obtain the optimal therapeutic effect. A typical daily dosage might range from about 1 µg/kg to up to 10 mg/kg or more, depending on the factors
15 mentioned above. Typically, the clinician will administer antibody until a dosage is reached that achieves the desired effect. The progress of this therapy is easily monitored by conventional assays.

20 5. DRUG DESIGN BASED ON THE ANTIGENS HEREIN OR ANTIBODIES THERETO

[265] DISEASE/CONDITIONS LIST:

[266] The peptides and antibodies of the present invention can serve as valuable tools for designing drugs for treating various pathophysiological conditions such as immune-related diseases, cell growth-related diseases, cell regeneration-related diseases, immunological-
25 related cell proliferative diseases, and autoimmune diseases. Examples of specific diseases include AIDS, allergies, Alzheimer's disease, amyotrophic lateral sclerosis, atherosclerosis, bacterial, fungal, protozoan and viral infections, benign prostatic hypertrophy, bone diseases (e.g., osteoarthritis, osteoporosis), carcinoma (e.g., basal cell carcinoma, breast carcinoma, embryonal carcinoma, ovarian carcinoma, renal cell carcinoma, lung adenocarcinoma, lung
30 small cell carcinoma, pancreatic carcinoma, prostate carcinoma, transitional carcinoma of the bladder, squamous cell carcinoma, thyroid carcinoma), cardiomyopathy, chronic and acute inflammation, circadian rhythm disorders, COPD, Crohn's disease, diabetes, Duchenne

muscular dystrophy, embryonal carcinoma, endotoxic shock, environmental stress (*e.g.*, by heat, UV or chemicals), gastrointestinal disorders, glioblastoma multiform, graft vs. host disease, Hodgkin's disease, inflammatory bowel disease, ischemia, stroke, lymphoma, macular degeneration, malignant cytokine production, malignant fibrous histiocytoma, melanoma, meningioma, mesothelioma, multiple sclerosis, nasal congestion, pain, Parkinson's disease, prostate carcinoma, psoriasis, rhabdomyosarcoma, psychotic or neurological disorders (*e.g.*, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, locomotor problems, respiratory disorders, asthma, eating/body weight disorders including obesity, bulimia, diabetes, anorexia, nausea, hypertension, hypotension), renal disorders, reperfusion injury, rheumatoid arthritis, sarcoma (*e.g.*, chondrosarcoma, Ewing's sarcoma, osteosarcoma), septicemia, seminoma, sexual/reproductive disorders, tonsil, transitional carcinoma of the bladder, transplant rejection, trauma, tuberculosis, ulcers, ulcerative colitis, urinary retention, vascular and cardiovascular disorders, or any other disease or disorder in which G protein-coupled receptors are involved, as well as learning and/or memory disorders, diabetes, pain perception disorders, anorexia, obesity, hormonal release problems, or any other disease or disorder in which a specific GPCR is involved or that would be readily apparent to those skilled in the art in view of the present application.

EXAMPLES

[267] The Examples below provide information as follows: Example 1 relates to the identification and selection of the antigens set forth in Figure 2. Examples 2 to 4 relate to antibody production and purification based on such antigens. Examples 5 to 10 relate to H&E staining. And, Example 11 relates to Western blot analyses.

EXAMPLE 1: SELECTION OF ANTIGENS

[268] Antigenic peptides were derived from the amino acid sequence of a particular GPCR based on analyses of likely antigen-containing regions and specificity of those regions for the protein/gene of interest. The specificity of the antigen peptides (approximately 20 amino acids in length) for antibody generation was determined using the outlined techniques, including BLAST of several public databases. These public databases included but were not limited to GenBank, Swiss Prot Human, Swiss Prot NonHuman, GenPeptH, GenPept M, and

LifeSpan's proprietary databases. With respect to specificity, parameters that precluded the use of a particular peptide included the presence of 6 or more contiguous amino acids with sequence identity to protein(s) other than the protein of interest, the presence of sites of posttranslational modification, including phosphorylation and glycosylation, and highly hydrophobic sequences, which could indicate potential *in situ* localization within the plasma membrane. The peptides were analyzed for antigenicity using the published algorithm of Hopp, T. P., and Woods, K. R, Proc. Natl. Acad. Sci. U.S.A. 78, 3824-3828, (1981). Additional considerations in antigenic peptide design included 1) selection against sequences with multiple prolines in a row, 2) selection against sequences with multiple serines in a row, 3) selection against sequences with multiple lysines in a row, 4) selection against sequences with multiple arginines in a row 5) selection against sequences with multiple aspartic acids in a row, 6) selection against sequences with multiple glutamic acids in a row, 7) selection against peptides containing methionine or tryptophan, which can become oxidized as a result of the cyclization reaction, and 8) avoidance of stretches of 5 or more amino acids having no uncharged amino acids (which also resulted in a desirable charge to peptide length ratio of at least 1 charge:5 residues). The selected antigenic peptides are set forth in the Sequence Listing and in Figure 2.

EXAMPLE 2: ANTIBODY PRODUCTION SCHEDULE

- [269] Day 0 - Pre-immune serum collection (approximately 5.0 ml). Immunize using 200 µg antigen peptide per rabbit in Complete Freund's Adjuvant.
- [270] Day 14 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [271] Day 28 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [272] Day 42 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [273] Day 49 - First production bleed; obtain 24.0 - 26.0 ml.
- [274] Day 56 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.
- [275] Day 63 - Second production bleed and ELISA analysis.

[276] Day 70 - Immunize using 100 µg antigen per rabbit in Incomplete Freund's Adjuvant.

[277] Day 77 - Third production bleed and affinity purification.

5 **EXAMPLE 3: IMMUNOSORBENT PURIFICATION OF ANTISERUM:
COUPLING OF PEPTIDE TO CNBR-ACTIVATED SEPHAROSE 4B**

[278] Weigh out 0.8 g of CNBr-activated Sepharose 4B (2.5 ml of final gel volume). Wash and re-swell on sintered glass filter with 1 mM HCl, followed by coupling buffer (0.1 M NaHCO₃, 0.25 M NaCl, pH 8.5). Dissolve 10 mg of protein or peptide in coupling buffer.
10 Mix protein solution with gel suspension and incubate 2 hours at room temperature or overnight at 4°C. Block remaining active groups with 0.2 M glycine buffer, pH 8.1. Wash away excess adsorbed protein with coupling buffer, followed by 0.1 M acetate buffer containing 0.5 M NaCl, pH 4.3. Equilibrate the column with phosphate-buffered saline (PBS), pH 7.7.

15 **EXAMPLE 4: IMMUNOSORBENT PURIFICATION OF ANTISERUM:
AFFINITY PURIFICATION OF ANTISERUM**

[279] Dilute 10 ml of clear antiserum 1:1 with PBS, pH 7.7, apply to affinity column at a flow rate of 0.3 ml/minute, and monitor absorbance of eluate at 280 nm. Collect fractions of
20 unbound material and rinse column with PBS, pH 7.7. Elute bound antibody with 0.2 M glycine, pH 1.85, and collect eluate until absorbance at 280 nm returns to baseline. Neutralize all collected fractions with 1 M Tris-HCl, pH 8.5 immediately after collection. Determine OD at 280 nm, and determine the total OD recovered. Conduct ELISA analysis with the corresponding antigen to confirm the presence and identity of recovered antibody
25 and the removal of all antibody from the original serum. Concentrate antibody to approximately 2.0 mg/ml and dialyze against PBS with 0.01% NaN₃.

EXAMPLE 5: PREPARATION OF ANTIBODY DILUTIONS

[280] The purpose of this protocol is to dilute antibodies in solution. Materials include
30 Tris-HCL Buffer with carrier protein and 0.015 M NaN₃ (Dako Antibody Diluent #S0809 (DAKO, Carpinteria, CA); vials containing the antibodies described above or commercial antibodies against the particular GPCR; pipetmen and disposable tips; container of chopped ice; 12 ml Dako reagent tubes; and, reagent tube rack.

- [281] The procedure is a) calculate proportions of antibody and diluent according to desired concentrations and volume requirements; b) label reagent tubes and place in rack; c) pipette needed volume of diluent into tube(s); d) place vials of antibodies into ice; e) invert and/or flick antibody vial(s) 3 or 4 times to insure suspension; f) pipette required volume of antibody(s) into corresponding diluent volumes; and, g) mix gently.

EXAMPLE 6: PREPARATION OF AUTOSTAINER SOLUTIONS

- [282] The purpose of this protocol is the preparation of concentrated solutions for use in a DAKO autostainer. Materials include DAKO[®] TBST (Tris Buffered Saline Containing Tween-S3306), 10X Concentrate, DAKO[®] Target Retrieval Solution, 10x Concentrate (S1699), deionized H₂O, 20L container, with lid, marked at the 10L level, DAKO[®] TBS (Tris Buffered Saline-S1968), and DAKO Tween[®] (S1966).

- [283] The procedure to make TBST 10x Concentrate is a) pour 2 500 ml bottles DAKO[®] TBST into a 20 L container, b) add deionized H₂O until solution level is at 10 L mark, c) replace lid and shake 10 to 20 times, d) pour diluted DAKO[®] TBST into autostainer carboy(s) as designated. The procedure to make Target Retrieval Solution is a) measure 135 ml of deionized H₂O and pour into slide bath, b) measure 15 ml of DAKO[®] Target Retrieval solution, c) add to H₂O, and d) agitate. This solution is then used in the steam method of target retrieval, Example 9, below. The procedure to make TBS is a) fill 20L container to 10L mark with deionized H₂O, b) add 2 envelopes of DAKO[®] TBS, c) add 5 ml of DAKO TWEEN[®], and d) replace lid and agitate 10 to 20 times.

EXAMPLE 7: PREPARATION OF SOLUTIONS FOR ANTIBODY DETECTION

- [284] Solutions for antibody detection are prepared using Vector[®] Biotinylated antibody (BA series), Vectastain[®] ABC-AP Kit (AK-5000), 10 mM sodium phosphate, pH 7.5, 0.9% saline (PBS), Vector[®] Red Alkaline Phosphatase Substrate Kit I (SK-5100), and 100 mM Tris-HCl, pH 8.2 Buffer. To prepare biotinylated antibody, add 10 ml of PBS to reagent tube, add 1 drop biotinylated antibody to the PBS, then mix gently. To prepare ABC, to 10 ml of PBS, add 2 drops each of Reagent A and Reagent B, mix immediately, then allow to stand 30 minutes before use. To prepare AP Red, which should be prepared immediately

before use, to 5 ml of Tris-HCl buffer, add 2 drops of Reagent 1 and mix well, add 2 drops of Reagent 2 and mix well, then add 2 drops of Reagent 3 and mix well.

EXAMPLE 8: DEPARAFFINIZATION AND REHYDRATION OF SAMPLES

[285] The purpose of this protocol is to remove paraffin from and rehydrate preserved tissues in preparation for IHC procedures. Materials and equipment include fume hood, vertical slide rack(s), three xylene (VWR #72060-088) baths, three 100% alcohol blend (VWR #72060-050) baths, two 95% alcohol blend (VWR #72060-052) baths, one 70% alcohol blend (VWR #72060-056) bath, and Tris-Buffered Saline (DAKO® S1968) + Tween® (DAKO S1966).

[286] Insert the slides into the vertical rack(s). Move slides through baths inside fume hood as follows:

15	Xylene 5 Minutes
	Xylene 5 Minutes
	Xylene 5 Minutes
	100% Alcohol 2 Minutes
	100% Alcohol 2 Minutes
	100% Alcohol 1 Minute
20	95% Alcohol 2 Minutes
	95% Alcohol 2 Minutes
	70% Alcohol 1 Minute

[287] Finally, place slides into a container with TBST.

EXAMPLE 9: STEAM METHOD OF TARGET RETRIEVAL

[288] The purpose of this protocol is to optimize antibody binding within paraffin embedded tissues. Materials and equipment included a steamer, deionized H₂O, target retrieval solution, 10X concentrate (DAKO #S1699), 250 ml graduated cylinder, 15 ml graduated cylinder, staining dish(es), and deparaffinized and rehydrated tissue on microscope slides in immersed TBST. The procedure is to a) fill the steamer with deionized H₂O to appropriate depth as indicated, b) turn the steamer on, c) in a graduated cylinder, measure 135ml of deionized H₂O and pour into staining dish(es), d) pipette 15ml of target retrieval solution and release into deionized H₂O, e) place the staining dish(es) into the basket of the steamer and heat for at least 10 minutes to preheat, f) add rack(s) containing tissue slides to heated target retrieval solution, g) cover and steam for 20 minutes, h) remove container from

steamer and let stand at room temperature for 20 minutes, i) transfer rack(s) with slides to container(s) of TBST, and j) slides are now ready for staining procedures.

EXAMPLE 10: ANTIBODY DETECTION

- 5 [289] The deparaffinized, rehydrated, and steamed (if needed) slides are loaded onto racks within a DAKO autostainer and then the autostainer is run according to the manufacturer's instructions. The slides are removed and the autostainer is turned off.

EXAMPLE 11: WESTERN BLOTTING

- 10 [290] The purpose of this protocol is to visualize the immunoreactivity of the antibodies described above against the particular GPCR on a western blot. Materials and equipment included western blot membrane, TBS Tween (TBST: 100 mM Tris-HCl pH 7.5, 150 mM NaCl, 0.1% TweenTM 20), 5% non-fat dried milk in TBST (blotto), antibody of interest (primary), peroxidase-conjugated AffiniPure goat anti-rabbit IgG (H+L) (secondary) –
15 Jackson ImmunoResearch, ECL solution (Amersham Biosciences, Uppsala Sweden), film, developer D-19, fixer, rocking platform.

- [291] During the blotting procedure, the blot is kept wet at all times and on a substantially level surface. The Western blot is placed right-side up in 10 ml of blotto. The membrane is flipped over and the dish rocked so that the solution covered it. The membrane is then
20 flipped back to the right side and solution is again rocked over it. The blot is then placed on a shaker for at least 1 hour. Ten ml of primary antibody are prepared by diluting 1:500 in blotto.

- [292] The blotto is removed from the Western blot and replaced with the primary antibody. The blot is flipped again and placed on the shaker for 1 hour. Secondary antibody
25 and peroxidase-conjugated AffiniPure goat anti-rabbit IgG (H+L) are prepared 1:20,000 in 10 ml of blotto. The primary antibody is removed and the Western blot is washed 3 times with 10 ml of blotto. The blotto is removed and replaced with the secondary antibody solution. The blot is flipped and placed on the shaker for 1 hour. The secondary antibody is removed and the blot washed 2 times with 10 ml of blotto. The blotto is removed and the blot is
30 washed 2 times with 10 ml TBST. ECL is prepared by combining equal amounts of Solution 1 and 2.

[293] The blotto is removed and 1 ml of ECL is placed on the blot. The blot is flipped and let sit for 1 minute. The blot is placed on plastic wrap and immediately covered with plastic wrap. The ECL is pressed out. The blot is placed on the film, then the film is developed.

5

[294] From the foregoing, it will be appreciated that, although specific embodiments of the invention have been described herein for purposes of illustration, various modifications may be made without deviating from the spirit and scope of the invention. Accordingly, the invention includes all permutations and combinations of the subject matter set forth herein

10 and is not limited except as by the appended claims.

WHAT IS CLAIMED IS:

1. An isolated antigenic peptide according to any one of SEQ ID NOS. 692-2292.
- 5 2. An isolated antigenic peptide comprising an amino acid sequence that is at least about 90% identical to a sequence set forth in any one of SEQ ID NOS. 692-2292.
3. An isolated antigenic peptide that is an analog of an antigenic peptide according to any one of SEQ ID NOS. 692-2292.
4. An isolated antigenic peptide comprising a short antigenic amino acid
10 sequence that is identical to at least 5 consecutive amino acids set forth in any one of SEQ ID NOS. 692-2292.
5. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to or contains no more than one conservative amino acid substitution over at least 7 consecutive amino acids set forth in any one of SEQ ID NOS. 692-
15 2292.
6. A kit for the detection of antibodies against a particular GPCR in a sample comprising:
 - a) an isolated antigenic peptide according to any one of claims 1-5 and derived from the particular GPCR, and
 - 20 b) at least one of a reagent or a device for detecting the antibodies.
7. An isolated antibody having high specificity and high affinity or avidity for a particular GPCR comprising a peptide sequence that is identical to any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151,
25 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is identical to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187,
30 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.
8. An isolated antibody having high specificity and high affinity or avidity for a particular GPCR comprising a peptide sequence that is at least about 90% identical to any

one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using the peptide sequence that is
5 at least about 90% identical to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

9. An isolated antibody having high specificity and high affinity or avidity for a
10 particular GPCR comprising a peptide sequence that is an analog to any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced using an isolated antigenic peptide comprising the
15 peptide sequence that is the analog to the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

10. An isolated antibody having high specificity and high affinity or avidity for a
20 particular GPCR comprising a peptide sequence that is identical to at least 5 consecutive amino acids set forth any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372, wherein the antibody was produced
25 using a short isolated antigenic peptide comprising the at least 5 consecutive amino acids set forth in the any one of SEQ ID NOS. 692-703, 713-730, 744-802, 807-820, 825-875, 880-889, 917-941, 950-964, 971-984, 989-993, 1010-1013, 1021-1024, 1029-1043, 1049-1052, 1057-1072, 1087-1113, 1124-1151, 1161-1172, 1179-1187, 1198-1209, 1228-1231, 1245-1257, 1271-1279, 1304-1308, 1369-1372.

30 11. An isolated antibody specific for a particular GPCR comprising a peptide sequence that is identical to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028,

1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955,
 5 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is identical to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270,
 10 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

12. An isolated antibody specific for a particular GPCR comprising a peptide
 15 sequence that is at least about 90% identical to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679,
 20 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using the peptide sequence that is at least about 90% identical to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086,
 25 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

30 13. An isolated antibody specific for a particular GPCR comprising a peptide sequence that is an analog to any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028,

1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 5 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using an isolated antigenic peptide comprising the peptide sequence that is the analog to the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 10 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

14. An isolated antibody specific for a particular GPCR comprising a peptide 15 sequence that is identical to at least 5 consecutive amino acids set forth any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 20 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292, wherein the antibody was produced using a short isolated antigenic peptide comprising the at least 5 consecutive amino acids set forth in the any one of SEQ ID NOS. 704-712, 731-743, 774-777, 803-806, 821-824, 876-879, 890-916, 942-949, 965-970, 985-988, 994-1009, 25 1014-1020, 1025-1028, 1044-1048, 1053-1056, 1073-1086, 1114-1123, 1152-1160, 1173-1178, 1188-1197, 1210-1227, 1232-1244, 1258-1270, 1280-1303, 1309-1368, 1373-1377, 1386-1389, 1394-1402, 1462-1482, 1496-1525, 1542-1549, 1557-1563, 1583-1649, 1656-1679, 1684-1688, 1693-1732, 1744-1752, 1765-1839, 1846-1854, 1855-1866, 1871-1917, 1926-1941, 1952-1955, 1960-1980, 1985-2141, 2152-2165, and 2170-2292.

30 15. A kit for the detection of antibodies against the particular GPCR of claim 5 comprising:

a) an isolated antibody according to any one of claims 7-14, and

- b) at least one of a reagent or a device for detecting the antibody.
16. An assay for the detection of a particular GPCR in a sample, comprising:
- a) providing an isolated antigenic peptide according to any one of claims 1-5,
- b) contacting the isolated antigenic peptide with the sample under conditions suitable
5 and for a time sufficient for the antigenic peptide to bind to one or more antibodies specific
for the particular GPCR present in the sample, to provide an antibody-bound antigenic
peptide, and
- c) detecting the antibody-bound antigenic peptide, and therefrom determining whether
the sample contains the particular GPCR.
- 10 17. The assay of claim 16 further comprising the step of binding the isolated
antigenic peptide or the antibody to a solid substrate.
18. The assay of claim 16 or 17 wherein the sample is an unpurified sample.
19. The assay of any one of claims 15-18 further comprising, prior to the
contacting, obtaining the sample from a human being.
- 15 20. The assay of any one of claims 15-19 wherein the assay is selected from the
group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a
radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay
(ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an
immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an
20 immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a
biosensor assay, and a low-light detection assay.
21. An isolated nucleic acid molecule encoding an antigenic peptide according to
any one of SEQ ID NOS. 692-2292.
22. The isolated nucleic acid molecule according to claim 21 wherein the
25 molecule encodes a naturally occurring human antigenic peptide.
23. An isolated nucleic acid molecule encoding an antigenic peptide that is at least
about 90% identical to any one of the antigenic peptides set forth in SEQ ID NOS. 692-2292.
24. The isolated nucleic acid molecule according to claim 23 wherein the
antigenic peptide is at least about 95% identical to the antigenic peptide.
- 30 25. The isolated nucleic acid molecule according to claim 23 or 24 wherein the
molecule encodes a naturally occurring human antigenic peptide.

26. A process for producing an isolated polynucleotide comprising hybridizing a nucleotide encoding an antigenic peptide according to any one of SEQ ID NOS. 692-2292 to genomic DNA under highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

5 27. A method of identifying an amino acid sequence for an antigenic peptide from a candidate polypeptide sequence wherein the antigenic peptide has a length of about 5 to about 100 amino acids, the method comprising:

a) searching the candidate polypeptide sequence using a comparison window of the length, and

10 b) selecting against amino acid sequences of the length and having at least 3 characteristics selected from the group consisting of 1) at least two consecutive prolines, 2) at least two consecutive serines, 3) at least two consecutive lysines, 4) at least two consecutive arginines, 5) at least two consecutive aspartic acids, 6) at least two consecutive glutamic acids, 7) methionine, 8) tryptophan, and 9) at least five consecutive amino acids comprising
15 no charged amino acids.

28. The method of claim 27 wherein the method further comprises selecting against at least 5 of the characteristics.

29. The method of claim 27 wherein the method further comprises selecting against at least 7 of the characteristics.

20 30. The method of claim 27 wherein the method further comprises selecting against the 9 characteristics.

31. The method of any one of claims 27-30 wherein the method further comprises:

c). selecting against amino acid sequences of the length and having at least one of the following additional characteristics 1) sequences having at least 5 consecutive amino
25 acids that are identical to an alternative amino acid sequence from an alternative polypeptide that is different from the candidate polypeptide, 2) posttranslational modification sites, and 3) highly hydrophobic sequences.

32. The method of claim 31 wherein the posttranslational modification sites are phosphorylation or glycosylation sites.

30 33. The method of claim 31 or 32 wherein the method further comprises selecting against at least 2 of the additional characteristics.

34. The method of claim 31 or 32 wherein the method further comprises selecting against the 3 additional characteristics.

35. The method of any one of claims 27-34 wherein the method further comprises performing a BLAST-type or a FAST-type analyses for the candidate polypeptide sequence.

5 36. The method of any one of claims 27-34 wherein the method further comprises performing a BLAST analysis for the candidate polypeptide sequence.

37. The method of any one of claims 27-36 wherein the antigenic peptide has a length from 6 amino acids to about 50 amino acids.

10 38. The method of any one of claims 27-36 wherein the antigenic peptide has a length from 6 amino acids to about 20 amino acids.

39. The method of any one of claims 27-36 wherein the antigenic peptide has a length of about 20 amino acids.

40. The method of any one of claims 27-39 wherein the polypeptide is a protein.

15 41. The method of any one of claims 27-40 wherein the polypeptide is a human protein.

42. The method of any one of claims 27-41 wherein the polypeptide is a naturally occurring protein.

43. An isolated antigenic peptide that is specific for the candidate polypeptide of any one of claims 27-42 that is produced according to the method of any one of claims 27-42.

20 44. An antigenic peptide that is at least about 90% identical to the isolated antigenic peptide of claim 43.

45. An isolated antigenic peptide that is an analog of the isolated antigenic peptide of claim 43.

25 46. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to at least 5 consecutive amino acids of the isolated antigenic peptide of claim 43.

30 47. An isolated antigenic peptide comprising a short antigenic amino acid sequence that is identical to or contains no more than one conservative amino acid substitution over at least 7 consecutive amino acids of the isolated antigenic peptide of claim 43.

48. A kit for the detection of antibodies against the candidate polypeptide of any one of claims 43-47 in a sample comprising:

- a) an isolated antigenic peptide according to any one of claims 43-47 and derived from the candidate polypeptide, and
 - b) at least one of a reagent or a device for detecting the antibodies.
49. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 43, wherein the antibody was produced using the isolated antigenic peptide of claim 43.
50. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 44, wherein the antibody was produced using the isolated antigenic peptide of claim 44.
51. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 45, wherein the antibody was produced using the isolated antigenic peptide of claim 45.
52. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 46, wherein the antibody was produced using the isolated antigenic peptide of claim 46.
53. An isolated antibody specific for a candidate polypeptide comprising an amino acid sequence that is identical to the amino acid sequence of the isolated antigenic peptide of claim 47, wherein the antibody was produced using the isolated antigenic peptide of claim 47.
54. The isolated antibody of any one of claims 49-53 wherein the antibody has high specificity and high affinity for the candidate polypeptide.
55. A kit for the detection of antibodies against the candidate polypeptide of any one of claims 43-47 comprising:
- a) an isolated antibody according to any one of claims 49-53, and
 - b) at least one of a reagent or a device for detecting the antibody.
56. An assay for the detection of a candidate polypeptide in a sample, comprising:
- a) providing an isolated antigenic peptide according to any one of claims 43-47,
 - b) contacting the isolated antigenic peptide with the sample under conditions suitable and for a time sufficient for the antigenic peptide to bind to one or more antibodies specific for the candidate polypeptide present in the sample, to provide an antibody-bound antigenic peptide, and
 - c) detecting the antibody-bound antigenic peptide, and therefrom determining whether the sample contains the candidate polypeptide.

57. The assay of claim 56 further comprising the step of binding the isolated antigenic peptide or the antibody to a solid substrate.

58. The assay of claim 56 or 57 wherein the sample is an unpurified sample.

59. The assay of any one of claims 56-58 further comprising, prior to the
5 contacting, obtaining the sample from a human being.

60. The assay of any one of claims 56-59 wherein the assay is selected from the group consisting of a countercurrent immuno-electrophoresis (CIEP) assay, a radioimmunoassay, a radioimmunoprecipitation, an enzyme-linked immuno-sorbent assay (ELISA), a dot blot assay, an inhibition or competition assay, a sandwich assay, an
10 immunostick (dip-stick) assays, a simultaneous assay, an immunochromatographic assay, an immunofiltration assay, a latex bead agglutination assay, an immunofluorescent assay, a biosensor assay, and a low-light detection assay.

61. An isolated nucleic acid molecule encoding an antigenic peptide according to any one of claims 43-47.

15 62. The isolated nucleic acid molecule according to claim 61 wherein the molecule encodes a naturally occurring human antigenic peptide.

63. An isolated nucleic acid molecule encoding an antigenic peptide that is at least about 90% identical to any one of the antigenic peptides set forth in claims 43-47.

64. The isolated nucleic acid molecule according to claim 63 wherein the
20 antigenic peptide is at least about 95% identical to the antigenic peptide.

65. The isolated nucleic acid molecule according to claim 63 or 64 wherein the molecule encodes a naturally occurring human antigenic peptide.

66. A process for producing an isolated polynucleotide comprising hybridizing a nucleotide encoding an antigenic peptide according to any one of claims 43-47 to genomic
25 DNA under highly stringent conditions and isolating the polynucleotide detected with the nucleotide.

SEQ ID NO:	LSID	Gene	Source ID	Sequence	Code	SpeciesName
526	160397	Latrophilin-2	NP_036434.1	<p> MYSSGCRMRS LWFIIIVISFL PNTEGFSRAA LPFGLVRREL SCEGYSIDLR CPGSDVIMIE SANYGRITDDK ICDAADPFQME NTDCYLPDAF KIMTQRNNR TQCIVVTGSD VFDPDPCGTY KYLEVQYECV PYFVCPGTL KAIVDSPCIY EAEQKAGAWC KDPLQAADKI YFMPWTPYRT DTLIEYASLE DFQNSRQITTT YKLPNRVDGT GFVVYDGAUF FNKERTRNIV KFDLRTRIKS GEAIINYANY HDTSPYRWGG KTDIDLA VDE NGLWVIYATE QNNGMVISQ LNPYTLRFEA TWETVYDKRA ASNAFMICGV LYVVRVYQD NESETGKNSI DYIYNTRLNR GEYVDVFPFN QYQYIAA VDY NPDNQLYVW NNNFLRYSL EFGPPDPAQV PTTAVTITSS AELFKTHIST TSTTSQKGPMTT VAGSQEG SKGTKPPAV STTKIPPITN IFPLPERFCE ALDSKGIKWP QTQRGMVVER PCPKGTRGTA SYLCMISTGT WNPKGPDLSN CTSHWVNQLA QKIRSGENAA SLANELAKHT KGPVFAGDVS SSVRLMEQLV DILDAQLOEL KPSEKDSAGR SYNKAIVDTV DNLLRPEALE SWKHMSSEQ AHTATMLDIT LEEGAFVLAD NLEPTRVSM PTENIVLEVA VLTGEGQIQD FKFLPGIKGA GSSIQLSANT VKQNSRNGLA KLVIYIRSL GQFLSTENAT IKLGADFIGR NSTIAVNSHV ISVSINKESS RVYLTDPVLF TLPHPDNY FNANCSFWNY SERTMMGYWS TQGCKLVDTN KTRTTCACSH LTNFAILMAH REIAYKDGVB ELLLTIVITWV GIVISLVCLA ICIFTCFFR GLQSDRNTH KNLCNLFIA EFILIGIDK TKYAIACPIF AGLLHFFLA AFAWMCLEGV QLYLMLVEVF ESEYSRKKYY YVAGYLFPAT VVGVSAAIDY KSYGTEKACW LHVNDYFIWS FIGPVTFIL LNIIFLVITL CKMVKHSNTL KPDSSRLNI KSWVLGAFAL LCLLGLTWSF GLFINEETI VMAYLFTFN AFQGVFIF HCALQKKVRK EYKCFRHSY CCGGLPTESP HSSVKASTTR TSARYSSGTQ SRIRRMWNDT VRKQSESSFI SGDINSTSTL NOGHSNNAR DTSAMDITPL NGNFNNSYSL HKGDYNDVSQ VVDCGLSLND TAFEKMIISE LVHNNLRGSS KTHNLELTL VPKVIGGSS EDDAIVADAS SLMHSDNPGL ELHHKELEAP LPQRTSHLL YQPKKKVKSE GTDSYVVSQLT AEADHLQSP NRDSL YTSMP NLRDSPYES SPDMEEDLSP SRRSENEIDIY YKSMNPNLGAG HQLQMCYQIS RGNSDGYIIP INKEGCIPEG DVREGQMQLV TSL ccgcggcicg gagacagcga gccagagict gggigtgtt ggcagagcca cggcgggggc tggggcgcagt ggcggcgaig gctgaaggct gcgctcgcga acctgaaga gccgctgcat tgaagaggcca gggacagagg gaccggigcg aiggcagagc gcggcccccgc ccgctgcgcc gggccggccc ggcctggcctg agccgcgcga ggcgcggggc tgcctcgcg cgtccatgga gcagcgggaa gggcgaaact ccgagcgcgc ccgctccctg gccgctgcgc ccgactgcgc aagggggcga gccgcgcgcg accgcgcagg aagagacccc cgtccagcc cgcaggccgg ctgcccgggc cggcggggg acatcgagg gacgcggagc gagcagcgc ccgggagagg ccggcgcggg aggcggccgc agcaatgcg ggcgcgcctag ggcctcctcgt ctctcgcg ctggggcctc tggcctgcgc ccggcccgag ccgctcctc cgcgcgcgc cgcctcctc cgcgcgcgc accgcgcaccg tcgggtggac tgcctcggga agggcgtag ggcgctgccc gaggggctca gcgcttcac ccaagcgcctg gataatcga tgaacaacat tactcagtg ccagaagatg caatgaaga ctctctt ctagaagagc tacaatggc gggcaacgac ctctctta tcaacccaaa ggccttgctt ggggtgaag aactcaaat tcaacgctc cagaataac agtgaatac agtaccocagt gaagccattc gaggcctgag tcttgcgt tagatgccaa ccalatcacc tcatgcccg aggacagttt tgaaggactt </p>	P	Homo sapiens
527	160411	G Protein-Coupled Receptor GPR48	NM_018490	<p> YKSMNPNLGAG HQLQMCYQIS RGNSDGYIIP INKEGCIPEG DVREGQMQLV TSL ccgcggcicg gagacagcga gccagagict gggigtgtt ggcagagcca cggcgggggc tggggcgcagt ggcggcgaig gctgaaggct gcgctcgcga acctgaaga gccgctgcat tgaagaggcca gggacagagg gaccggigcg aiggcagagc gcggcccccgc ccgctgcgcc gggccggccc ggcctggcctg agccgcgcga ggcgcggggc tgcctcgcg cgtccatgga gcagcgggaa gggcgaaact ccgagcgcgc ccgctccctg gccgctgcgc ccgactgcgc aagggggcga gccgcgcgcg accgcgcagg aagagacccc cgtccagcc cgcaggccgg ctgcccgggc cggcggggg acatcgagg gacgcggagc gagcagcgc ccgggagagg ccggcgcggg aggcggccgc agcaatgcg ggcgcgcctag ggcctcctcgt ctctcgcg ctggggcctc tggcctgcgc ccggcccgag ccgctcctc cgcgcgcgc cgcctcctc cgcgcgcgc accgcgcaccg tcgggtggac tgcctcggga agggcgtag ggcgctgccc gaggggctca gcgcttcac ccaagcgcctg gataatcga tgaacaacat tactcagtg ccagaagatg caatgaaga ctctctt ctagaagagc tacaatggc gggcaacgac ctctctta tcaacccaaa ggccttgctt ggggtgaag aactcaaat tcaacgctc cagaataac agtgaatac agtaccocagt gaagccattc gaggcctgag tcttgcgt tagatgccaa ccalatcacc tcatgcccg aggacagttt tgaaggactt </p>	A	Homo sapiens

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 tacaaggca ttacttatt atgtttac ttgccatct tgaataaaga gaactataa ttgtttaa gcaatttata aaictaaaac
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 ttattagac gaaacgggga gtaattaga cagaaagtag ttatgttat ttcttagtga gctgggattat ctgaacctg tgcataaaa
 tggaaatttc catacatct ccccalacta ttittttaa aagagccat tcaatagctc agagggttga ctctggtaa acaagataat

P Homo sapiens

P

528 160411 G Protein-Coupled Receptor GPR48 NP_060960.1

atgttattaa taaaataaga agaagaaga ataaagctta gtctgtgtc ttataaatt aaaaatttta ctgtattccc atctatgggc
tttagacctt ttactgggtg ggtgtctaaa gtataatgt ttcaatagt ttgttgataa gttgtctaaa tcaatagcaa accactggc
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caaaattcag gtatttgaaa attttcatt ttattcatt aaaaactaga ataacagala taaaagagtg ttaactttg tgcataatgg
tatgaataac aaattgtac tcatgtttt gaattattaa agttctaga aagcaaaaa a
MPGPLGLLCLF LALGLLSAG PSGAAPPLCA APCSCDGD RR VDCSGKGLTA
VPEGLSAFTQ ALDISMNNIT QLPEDAFKNF PFLEELQLAG NDLSFIHPKA
LSGLKELKVL TLQNNQLKTV PSEAIRGLSA LQSLRLDANH ITSVPEDSFE
GLVQLRHLWL DDNSL TEVPV HPLSNLPTLQ ALTALNKNIS SIPDFAFTNL
SSLVVLHLHN NKIRGLSQHC FDGLDNLLET DLSYNNLGEF PQAIKARPSL
KELGFHSNSI SVIPDGAFDG NPLLRTHLY DNPLSFVGN ASHNLSDLHS
LVIRGASMVQ QFPNLTGTVH LESLTLTGK ISSIPNNLCQ EQKMLRTL DL
SYNNIRDLPS FNGCHALEEI SLQRNQIYQI KEGTFQGLIS LRILDLRNL IEIHSRAFA
TLGPITNLDV SFNEL TSFT EGPNGLNQLK LVGNFKLKEA LAAKDFVNLR
SLSVPYAYQC CAFWGCDSYA NLNTEDNSLQ DHSVAQEKGT ADAANVTSTL
ENEEHSQIII HCTPSTGAFK PCEYLLGSWM IRLTVWFIEL VALFNLLVI LTTFASCTSL
PSSKLFGLI SVSNLFMGY TGILTFLDV SWGRFAEFGI WWETGSGCKV
AGFLAVFSE SAIFLLMLAT VERSLSAKDI MKNKGSNHLK QFRVAALSAF
LGATVAGCFP LFHRGEYSAS PLCLPFTGE TPLSGFTVTL VLLNSLAFL
MAVYTKLYC NLEKEDLSEN SQSSMIKHA WLIFTNCF CPVAFFSFAP LIT AISIPE
IMKSVTLIFF PLPACLNPLV YVFFNPKFKE DWKLLKRRVT KKS GSVSVSI
SSQGGCLEQD FYYDCGMYSH LQGNLTVCDC CESFLLTKPV SKHLIKSHS
CPALAVASCQ RPEGYWSDCG TSAHSDYAD EEDSFVSDSS DQVQACGRAC
FYQSRGFPLV RYAYNLPRVK D
aacttggaagg gacgcgtct ggcgccacg aacacttct caagcactt ggttgaccac ggttgcaag ctgggtggctg
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cggacaacgc gacgtgcag atgtctgcga accggcgat cgcgggtggc cgtccgtgg tgtactcgt ggtggcgcg
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accatctca tctgtgtt cctcatccc ttgtgtatca cgtgtgtgt ttacaggcc accatctca agcgtgtg
cacggaggag gcgcacggcc gggagcagcg gaggcgcgcg gtggggcctgg ccggcggtgt ctgtcggcc ttgtcacct

A Homo sapiens

A

529 160435 LS160435 Receptor AX147830

530	160435	LS160435 Receptor	LR80	<p>gcttgccc caacaattc gtgtctctgg cgcacalcgt gtagccgttg ttacaggca agagtactia ccacgtgtac aagctcacg tgtgtctcag ctgtctcaac aactgtctgg accgtgtgt ttattctt ggtccocggg aattccagct ggccttgagg gaattttgg gctgcccggg ggtgcccaga gacaccttgg acacggccg cgaagaccct ttctcccca ggaaccagtc cgtgctccc gaggccgggtg cgcaccttga agggatggag ggaagccacca gggccggcct ccagaggcag gagggtgt tcgagctcc gggggcgag cttggagagc cggggcgca gcttggaggga tccagggggc cagggagagg ccagggggcc agaggttcag ggaagacagc tgcgtgtc ccaggcactg cagggcccg gtagggagg gttccaggc ttatcttc ccaggcactg cagaggcacc ggtgaggag ggtctcagg cttcacag gtagagagaa caagcaaaag ccagcagcgc acagggtgt tttatctg cagagggtgc ctctgctct ctgtgcagg gacacgttg tgtcacag cccggcta ttgtattt tttttag agctgggtg tcccccga gctcttga cactctac acctgtccat accggaggt ggalatitcaa ccagcccac cgcctaccg actcgggtt tggatalct ctgtgggga actgggagcc ccattccag ctcttccc tgtgacatc gtcctttag acactgtcc ataccggag aggtatitc aaccagccc accgcttacc cgtctgggt tcggatalc ctctggggc gaactgcag cccattccc agctcttc cctgtcaga tctgtctta gtgtgttgc tggccttctc cattctctc caggggttct ggttccgta gcccgggtga cggcaaat tctgttatt tcatcagg gcatgtgt tgcgtgtgt ggaattctc tticagagg ggcctgggg ctctgcaag tcatgtact tccgtgcca ctccccca cacacacac ccccgtgc cgaattc</p>	P	Homo sapiens
531	160889	Platelet Activating Receptor Homolog (H963)	NM_013308	<p>MQVPNSTGPD NATLQMLRNP AIAVALPVVY SLVAAVSIPG NLFSLWVLCR RMGPRSPSVI FMINLSVTDL MLASVLPFQI YYHCNRHHWV FGVLLCNVVT VAFYANNMYSS ILTMTCSIVE RFLGVLYPLS SKRWRRRRYA VAACAGTWLL LLTALSPLAR TDLTPVHAL GIITCFDVLK WTMPLSVAMW AVFLTFIL LFLIPFVITV ACYTATILKL LRTEEAHGRE QRRRAVGLAA VLLAFVTCF APNNEVLLAH IVSRLFYKGS YYHYVYKLTLC LSCLNNCLDP FVYFASREF QLRLREYLGC RRVPRDRLDT RRESLSART TSVRSEAGAH PEGMEGATRP GLQRQESVF gaattggcc aaagggctt atgtctct gaagcttgc agcaagctt gctgaggctc acagaagata gccccaggt ttggagttg ttgaaagt gattctgaga tcaagctgac tgaagctggaa tctgtgctt atacttacc agctacacaa ccttggagtc ttgaaatt ttcttca ataaagcagc atccttacti tccctcaga tgaacaacag ttgcttctc tgcocagtt ataaagatc ggagccattc acgtatttt ttattagt ttctgtgt ggaattatg ggaattgttt tgaaccttgg gctttatc agaagaatc gaatcacagg tgtgtgaga tcaactta ttaattgtt acagccggtt tctgtctac tctggcatta ccagtgaaaa tgtgtgtga cttgggtgtg gcaccttga agctgaagat attccactgc caagtaaacg cctgctcat ctatacaat atgtattat caattact cttagcatt gtacgtgtt accgtgtct tcaagctgaca cacagctgca agatctacc aatacaagaa cccgggtttg ccaaaatgat atcaaccgtt ggtgggttaa tggctctct tataatgggt ccaataatga tgaattccat caaagacalc aaggaaaaagt caaatgtggg tigtatggag tttaaaagg aattggag aaattggcat tgtctgaca atttcatatg ttagcaata ttttaaat tctcagccat catttaata tcaattgoc ttgtaattg acagctctac agaaacaaag alaaagaaaa ttacccaat gtagaaaaag ctctatcaa calactitaa gtgaccacgg gctacatcat atgtttgt ctttaccaca tttgtccaat cccgtatacc ctacgccaga cagaagtcat aactgattgc tcaaccagga ttacacttt caaagocaaa gagggtacac tgcctggc tgtgtcgaac ctgtgtttg atcctatct gtactatcac ctctcaaaag cttccgctc aaaggtcact gaggctttg cctacctaa agagaccaag gctcagaaaag aaaaattaag atgtgaaaat atgtcataaa agacaggatt ttgtgtcta ccaattctg ccttacttga ccataaagt aattatgct ttagagata aaaaaaaa aaagcggcc gc</p>	A	Homo sapiens
532	160889	Platelet Activating Receptor	NP_037440.1	<p>MTNSSFFCPV YKDLFPFTYF FYLVFLVGI GSCFATWAFI QKNTNHRCSV IYLINLLTAD FLTLALPVK IVDLGVAPW KLKIFHCQVT ACLIYNMYL SIIFLAFVSI DRCLQLTHSC KIYRIQEPGF AKMISTVVWL MVLLIMVPNM MIPKDIKEK</p>	P	Homo sapiens

Accession	Gene	Protein	Species	Sequence
535	Galanin Receptor GalR3	NM_003614	Homo sapiens	<p>161214</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p> <p>161214</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p>
536	Galanin Receptor GalR3	NP_003605.1	Homo sapiens	<p>161214</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p> <p>161214</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p>
537	Urotensin-II Receptor (GPR14)	NM_018949	Homo sapiens	<p>161221</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p> <p>161221</p> <p>SLTGEESAR AWGGSWGPN PIPQLTL</p>

P Homo
sapiens

P

ctgggctgctg ttctgctt tctggctg gacagctgctg gccagctgacc accaggccccc gctggcgccg cggagggcgc
gcatcgcaaa ctactgacc acctgctca cctacggcaa cagctgctgccc aacoccttcc tctacagct gctcaccagg
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ccggcgccgc ttcaagctt gttcgggccg ctcctgtct tctgacgccc cagagccccc tgacagctc gctcggccc
cagggcccc ggccgacct ggcggcgagg gtcacaggc cccggcgga
MALTPESPSS FPLAATGSS VPEPPGGPNA TLNSSWASPT EPSLEDLVA
TGTIGTLLSA MGVVGVGNA YTLVVTCSRSL RAVASMYVYV VNLALADLLY
LLSIPFIVAT YVTKFWHFGD VGCRLVFLGLD FLTMHASIFT LTVMSERYA
AVLRPLDTVQ RPKGYRKL LA LGTWLLALL TLPVMLAMRL VRRGPKSLCL
PAWGPRAHRA YLTLLFATSI AGPLLIGLL YARLARAYRR SQRASFRRAR
RPGARALRLV LGIVLLFWAC FLFWLWQLL AQYHQAPLAP RTARIVNYLT
TCLTYGNSCA NPFLYTLTR NYRDHLRGRV RGPGGGGGRG PVPSLQPRAR
FQRCSGRSLS SCSPQPTDSL VLAPAAPARP APEGPRAPA

NP_061822.1

Urotensin-II
Receptor
(GPR14)

161221

538

A Homo
sapiens

A

atggctgca atggcagtc ggccaggggg cacttgacc ctgaggact gaacctgact gacagggcac tgagactcaa
gtacctgggg cccagcaga cagagctgtt catgcccate tggccacat acctgtgat ctctgtgtg ggcgtgtgg
gcaatgggct gacctgtg gtcactgc gccacaaggc calgcgacg cctaccaact actacctt cagccggcc
gtgtcgacc tctgtgtgt gctgggggg cggccctgg agctctaga gattggcac aactacct tctgtcggg
cgttggggc tctattcc gcacgtact gttgagatg gctgcctgg cctcagct caacgtact gccctgagcg
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ctgtcagc agggagccaa gggcagggg tctgcagcag ccaggccag ccaggccag aggtccagc agcagatcg
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cctgtgctc ggggctgtt gcatgtcct cagaccccg cagagctcc acagctcag caggatgacc accaggcaga
ccctgtga tggggctc ctgggcagct gggccaccc cctggctggg aacgatggcc cagaggcgca gcaagagacc
gatcactct ga
MACNGSAARG HFDPEDNLNT DEALRLKYL G PQQTELFMPI CATYLLIFVV
GAVGNGLTCL VILRHKAMRT PTNYLYFLSLA VSDLLVLLVG LPLELYEMWH
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQLARSMV
TRAHVRRLV AVWGLAMLC LPTSLHGIR QLHVPCRPV PDSA VCMLVR
PRALYNMNVQ TTALLFFCLP MAIMSVLYLL IGLRLRRL LLMQEAKEGRG
SAAARSRYTC RLQQRDRGR QVTKMLFVL VVFGICWAPF HADRVMMWSVV
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS
atggctaac tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgtaagt
cactaatgt aaatttcaat actccctca tggcaaccac tatctctca tattctctc tggcttctg gctaacagtg cagcctgtg
ggctctgct cgtctcaat gcaagaaaaa taaagccalc atttctatga tcaactctc tgggctgac ctgtctatg tattatctt

NM_006056

G Protein-
Coupled Receptor
GPR66

161249

539

P Homo
sapiens

P

MACNGSAARG HFDPEDNLNT DEALRLKYL G PQQTELFMPI CATYLLIFVV
GAVGNGLTCL VILRHKAMRT PTNYLYFLSLA VSDLLVLLVG LPLELYEMWH
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQLARSMV
TRAHVRRLV AVWGLAMLC LPTSLHGIR QLHVPCRPV PDSA VCMLVR
PRALYNMNVQ TTALLFFCLP MAIMSVLYLL IGLRLRRL LLMQEAKEGRG
SAAARSRYTC RLQQRDRGR QVTKMLFVL VVFGICWAPF HADRVMMWSVV
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS
atggctaac tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgtaagt
cactaatgt aaatttcaat actccctca tggcaaccac tatctctca tattctctc tggcttctg gctaacagtg cagcctgtg
ggctctgct cgtctcaat gcaagaaaaa taaagccalc atttctatga tcaactctc tgggctgac ctgtctatg tattatctt

NP_006047.1

G Protein-
Coupled Receptor
GPR66

161249

540

A Homo
sapiens

A

MACNGSAARG HFDPEDNLNT DEALRLKYL G PQQTELFMPI CATYLLIFVV
GAVGNGLTCL VILRHKAMRT PTNYLYFLSLA VSDLLVLLVG LPLELYEMWH
NYPFLGVGG CYFRTLLFEM VCLASVLNVT ALSVERYAV VHPQLARSMV
TRAHVRRLV AVWGLAMLC LPTSLHGIR QLHVPCRPV PDSA VCMLVR
PRALYNMNVQ TTALLFFCLP MAIMSVLYLL IGLRLRRL LLMQEAKEGRG
SAAARSRYTC RLQQRDRGR QVTKMLFVL VVFGICWAPF HADRVMMWSVV
SQWTDGLHLA FQHVHVISGI FFYLGSAANP VLYSLMSSRF RETFQEAALCL
GACCHRLRPR HSSHLSRMT TGSTLCDVGS LGSWVHPLAG NDGPEAQOET DPS
atggctaac tggacaata cactgaaca ttcaagatgg gtagcaacag taccagact gctgagatt actgtaagt
cactaatgt aaatttcaat actccctca tggcaaccac tatctctca tattctctc tggcttctg gctaacagtg cagcctgtg
ggctctgct cgtctcaat gcaagaaaaa taaagccalc atttctatga tcaactctc tgggctgac ctgtctatg tattatctt

NM_014499

Purinergic
Receptor P2Y10

161251

541

542	161251	Purinergic Receptor P2Y10	NP_055314.1	<p>accctccgg attactatt acatcagoca ccactggcct ttccagagag cccttggct gctcgtctc tacctgaagt alctcaacat gtagccagc attgtttcc tgaactgcat cagttgctaa aggttgcttt ttctctcaa cccttcagg gccagagact ggaagcgtag gtacgagtg ggcacagtg ctgccatctg gtagctgttg gggactgctt gtttgcatt tccatctctg agaaacacag actiaaaca caacaagtc tcttctctg atcttgata caagcaaal aatgacgttg cgttggtcgg gatgallaca gtgtcagc ttgcaggatt tglatccca gtagatca tgcagtggtg taccgtgaaa actactat ccttgagaca gccaccaatg gctttccaag gtagcagtg gaggcagaaa gcatgcgga tgggtgttat ggtgtcga gctttcca tctgttcac tccctatcat attacttta ttttlacac calgttaaag gaaacatca ttgacgttg tccgtgtg cgaatgcac tglatttcca cccttttgc ctgtgcttg caagtcttg ctgcttttg gatacaatc ttattact tatgtctca gagtgttg accaatat ccggcatggc agttctgtga ccgctcccg cctcagagc aaggagagtg gttcataat gattgctaa</p>	P	Homo sapiens
				<p>MANLDKYTET FKMGSTST AEIYCNVTNV KFYQSLYATT YLIFIPGILL ANSAALWVLC RFISKKNKAI IFMNLVSAD LAHVLSPLR IYYVISHWHP FQALCLLCF YLKYLNMYAS ICFLTCISLQ RCFFLLKPRF ARDWKRRYDV GISAAIWIV GTACLFPIL RSTDLNNKS CFADLGYKOM NAVLVGMIT VAELAGFVP VIIAWCTWK TTISLRQPPM AFQISERQK ALRMVFMCAA VFFICFTPYH INFYTMVK ETIISCPV RIALYFHPFC LCLASLCLL DPILYYFMAS EFRDQLSRHG SSVTRSLMS KESGSSMIG</p>		
543	161293	G Protein- Coupled Receptor Ls161293 [Herpes virus]	NP_042597.1	<p>MATTSATSTV NTSSLATMT TNFTSLTTSV VTTIASLVPS TNSSEDDYYDD LDDVDYEESA PCYKSDTTRL AAQVVPALYL LVFLGLLGN ILVVIIVRY MKIKNLTNML LLNLAISDLL FLTLFPWMH YIGMYHDWTF GISLCKLLRG VCYMSLSQV FCILLTVDR YLA VVYAVTA LRFRVTTCGI VTCVCTWFLA GLLSLPEFFF GHQDDNDRV QCDPYPEMS TNVWRRAHVA KVMLSLILP LLMAVCYV IIRLLRRPS KKKYKAIRLI FVMVAYFVF WTPYNIVLLL STFHATLNL QCALSSNLDL ALLITKTAV THCCINPVY AFVGEKFRRH LYHFFHTYVA IYLCYIPFL SGDEGKEGP TRI</p>	P	Equine herpesviri s 2
544	177147	Neuromedin K Receptor-Like (NK-4R)	NM_006679	<p>ggcagaacoc gactgaacg cggccacggc ggctcccca cctgcgcgt cctgcggcg gcgctgggct ccggggcacic gggctggcc ccatggct cggccgagg gaaactgagc gctggccgg gctgggggg ggcgcggcg gccgcgctga ggaaactgac ctctcccg gcccgaccg cgtcccgct cccggcccg tctgtggagc cctgcggcg ccccgcccg ggcaccgt tctgcagcc gccctggggc gtggcgctct ggtcgtctgg ctacggggc gtggggggc tggcggtgt cggcaaccic gttgtgact gtagctgtgt ggccacaag cgcagcggga cggcaccaa ctctcttc gtagacctgg ccttcggcga cggcgccatg gccggtca accgctgtgt caacttalc tacggcgctg accggagagtg gtagctggc ggcaactact gccgttcca gaacttcc ccatcaccg ccgtgtgc cagcatctac tcatgacgg ccatcggtgt ggcagatatac atggccattt ttgacccct gaaagccagg ctgtctgcca cggccaccgg gtagtctatt ggaagcatct ggattctggc atttactt gcatcttc agtgtctga ttcaaaalc aaagtalc caggccgtac tcttgctac gtaggtggc cagaagggtt aaggcaacat ttacgtacc acatgact catgctct gttactgt ttcttct catcatgggc atcacctaca ccatgttg aatcagctc tggggagggg agatccagg agaacctgc gacaagatcc agggagcagct gtagggccaag cgggaaggttg taaaatgat gtagctgt gttgtgacct ttgccatg ctggctggcc taccatct acttacct caccggccatc tatcagcagc tgaacagggt gaaaiacatc cagcaggtct acctggccag ctctggctg gccatgagct cggaccatga caaccatc atctactt gttgaaataa gtagtctgt gctgggtca agagggtct ccgtgggtg cctttatcc aggtctcag ctacgacgag ctggagctca aagccaccag gctccacca atggcagaga gtagcctata cacagtgaaca agaatggagt ccatggcgt ggtattcgac tccacagtg ggagacagtg caggtccagt caccagaga gtagggagcag cagagacgta</p>	A	Homo sapiens

ggctccaatg tctgctcccg caggaaactcc aagtcocact ccaccacagc cagcttctg agctctccccc acatctgggt
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caagtggtg aaattact gtagtact aaattccat ctcttata tggcagta tttaggaag tttaatooca atgtttat

545	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1		<p>ttaataatataaataatcatatgaataaata</p> <p>MASPAAGNLNSA WPGWGWPPPA ALRNLTSPPA PTASPPSPAPS WTPSPRPQGA HPFLQPPWAV ALWSLAYGAV VAVAVLGNLV VIWIVLAHKR MRTVTNSFLV NLAFAADAAMA ALNALVNFY ALHGEWYFGA NYCRRFQNFPP ITAVFASIYS MTAIAVDHYM AIDPLKPRLL SATATRIVIG SIWILAFLLA FPQCLYSKIK VMPGRTLCYV QWPEGRQHF TYHMMIVLV YCFLLIMGI TYTIVGITLW GGEIPGDTCD KYQEQLKAKR KVVKMMIIV VFAICWLPY HIYFILTAY QQLNRWKYIQ QVYLASFVLA MSSTMYPNII YCCLNKRFR GFKRAFRWCP FIHVSSYDEL ELKATRLHPM RQSSLYTIVR MESMSVVVDFS NDGDSARSSH QKRGTTTRDVG SNVCSRRNSK STSTTASFVS SSHMSVEEGS</p>	P	Homo sapiens
546	177168	Cysteinyl Leukotriene CYSLT1 Receptor	NM_006639		<p>atggatgaac caggaaatct gacagiatct tcigccacat gccatgacac tatigatgac ttcggcaatc aagigiatc cacctgtgac tctatgatct cigtgtgagg ctctgtggc aatggctgtg tgcctatgt cctcataaaa acctatacaca agaagtcagc ctccaagta tacaatgaia attiagcagt agcagaatcta ctgtgtgtgt gacacatgcc tctcgtgtg gictatgatg ttcacaaagg catgtggcic ttgtgtgact tctgtgcgg cctcagcacc tatgtctgtgt atgtcaacct ctatgttagc atctctttha tgcagccat gagcttttic cgg'gcaatg caatgtttt tccagtccag aacataaatt tggttacaca gaaaaagacc aggtttgtgt ggtaggtat ttgatttt gtgatttga ccagttccc attciaatg gccaaaccac aaaaaagatga gaaaaataat accaagtgct ttagagcccc acaagacaat caaaciaaaa atcatgtttt ggctgtgcat tatgtgtcat tttgtgtg cttaatc cctttgtta ttaaatgt ctgttacaca atgaicattt tgaacttact aaaaaaatca atgaaaaaaa atctgcaag tcatataaag gctataggaa tgaatcaggt cgtgaccgt gcttttttag tcaatttcat gccatatacat attcaacgt ccatcacat tcatitttta cacaatgaaa cttaaaccgt tgaattgtc cttaagaatgc apaaagtcctt ggtcataacc tttgtctggt ctgcatcaaa ttgtgtctt gacocctctc tatattctt ttctgggggt aactttagga aagggctgtc tacaatgaga aagcaattct tgtccagcgt gactiatgta cccagaaaga aggcctctt gccagaaaaa ggaagagaaa tatgaaagt atag</p> <p>MDETGNLTVS SATCHDITDD FRNQVYSTLY SMISVVGGFG NGFVLVYLIK TYHKSAFQV YMINLA VADL LCVCITPLRV VYVHKGIWL FGDFLCRLST YALYVNLVCS IFFMTAMSF RCIAIVFPVQ NINLVTKKA RFVCVGIWF VILTSSPFLM AKPQKDEKNN TKCFEPPQDN QTKNHVLVLH YVSLFVGFI PFVIIVCYT MILTLKKS MKKNLSHKK AIGMIMVVTA AFLVSFMPYH IQRTHLHFL HNETKPCDSV LRMQKS VVIT LSLAASNC CF DPLL YFFSGG NFRKRLSTFR KHSLSSTVTV PRKASLPEK GEEICKV</p>	A	Homo sapiens
547	177168	Cysteinyl Leukotriene CYSLT1 Receptor	NP_006630.1		<p>ccacgcgtcc gccgggtgca cgggtgcacc ggcagcggct caggctccgg ctctctcc gctgcagcag ccgcgctgcc ggcccccagc ggcctggatc cggccccggc cccctgggca ccgcctgtctc tggccccggc ccggccccgc cggaccatgg gctgggggccc ccagggggaaa accggaaccg gccaaaggcc ccgagagcc aggtctccgg gccggggccc cttccggccc cccagctc ggcggggccc ctgcggcg tccggagcc gccagggcc ccggtgagcc ggcggggccc ggcctggccc agcctggacc ggcggctgaa cgtctggggg gcgctggggg gcgaltgggg ggcggcgggg gggggcgcgcg gcttcggcg agcctggacc ggcggctgg ccgcgctcat ggcgctgtc atcggtggcca cgggtgtggg caacgcgtcg gctatgtcg ccttcgtggc cgactggagc ctccgaccc agaacaact ctctcgtc aacctggcca tcccgacti cctcgtcgcc gccttggca tcccacigta tgaacctac gtcctgacag gccgctggac ctggggcg ggcctcigca agctgtggct ggtagtggac lactgtgtgt gcaactctc tgccttaac atcggtccta tcagtacga ccgtctctg tgggtcaccc gaggggtc ataccggggc cagcagggg acacggggc ggcagtgccg aagaltgtcg tgggtgggt gctggcctc ctgtgtacg gaccagccat cctgagctgg gaggactgt ccggggggcag ctcatcccc gagggccact gctatggcca gttcttctac</p>	P	Homo sapiens
548	177191	Histamine H3 Receptor	NM_007232		<p>ccacgcgtcc gccgggtgca cgggtgcacc ggcagcggct caggctccgg ctctctcc gctgcagcag ccgcgctgcc ggcccccagc ggcctggatc cggccccggc cccctgggca ccgcctgtctc tggccccggc ccggccccgc cggaccatgg gctgggggccc ccagggggaaa accggaaccg gccaaaggcc ccgagagcc aggtctccgg gccggggccc cttccggccc cccagctc ggcggggccc ctgcggcg tccggagcc gccagggcc ccggtgagcc ggcggggccc ggcctggccc agcctggacc ggcggctgaa cgtctggggg gcgctggggg gcgaltgggg ggcggcgggg gggggcgcgcg gcttcggcg agcctggacc ggcggctgg ccgcgctcat ggcgctgtc atcggtggcca cgggtgtggg caacgcgtcg gctatgtcg ccttcgtggc cgactggagc ctccgaccc agaacaact ctctcgtc aacctggcca tcccgacti cctcgtcgcc gccttggca tcccacigta tgaacctac gtcctgacag gccgctggac ctggggcg ggcctcigca agctgtggct ggtagtggac lactgtgtgt gcaactctc tgccttaac atcggtccta tcagtacga ccgtctctg tgggtcaccc gaggggtc ataccggggc cagcagggg acacggggc ggcagtgccg aagaltgtcg tgggtgggt gctggcctc ctgtgtacg gaccagccat cctgagctgg gaggactgt ccggggggcag ctcatcccc gagggccact gctatggcca gttcttctac</p>	A	Homo sapiens

549	177191	Histamine H3 Receptor	NP_009163.1	<p> aacttgtaact tctcatcac ggccttcacc ctggagattct ttacggcctt ttacggcctt cctcagctc acctcttta acctcagcat ctacctgaac atccagaggg gcacccggct ccggctggat gggtctcgag aggcagccggg ccccgagccc cctcccgagg ccaagccctc aacacccca ccgcctggct gctggggctg ctggcagaaag ggagcaggggg aggcagggcc gctgcacaggg tatgggggtgg gtgagcgggc cgtatggcgt gagccggggg aggcagacct cggggggggg gggtggggggg gctccggggg ttacacaccc tccagctccg gcagctccc gaggggacct gagagggccc gctacactaa gagggggctcc aggccgctgg cgtctcggc ctcgtcggag aagcagta agatggctg ccagagcttc accagggct ttggctgctg tggggagagc aagggggcca agctcctggc cgtcatcgtg agcatcttg ggctctgctg ggccccatag acgcctgctg tgaatccg ggccggccg catggccact gcgtccctga ctactggat gaaacctct tctggctct tggggccaac tgggtctgta accctgctt ctaccttg tggccaca gcttcggccg ggccctcac aagctgctct gcccacagaa gctcaaatc cagcccccac gtctccctga gcactgctgg aagtgagggg ccacacagag cctccctcag ccacggcctct ctacggccag gctcctgggg catctggccc tctggcccc taccggctc gttccccag gggtggagccc cggcgtgctt gggtggggg cgtgggtggc cggcagccac cctggccatgg aggcggctc ctgggtggc cagagggggc ctacactggct ggactggaggg cgtgggtggc ggccctggcc ccacattct ggctccacgg ggagggggaca gctgggggg ccaagacatg ctggccaccc cctgctgggtg cccaccttc gcagttactg gttgggtg ttccaaag aagcacctgg gttgctctca ggctctcgc ctagcagtt tggctctgca cgtgcacaca cctgcacacc cctgcacaca cctgcacac gtcctctcc ccgggacaag ccagggacact gcttggctg ccttctgt ctgcaatag cctcaggtt ggcccttca cctctctc caccactct ctctggccc aaagtgctca agggggccca ggaaacctga agctgtctc tctttcca tctgggggt ttacagaaag atgaagaaag aaacatgctt gtagactga tgtcgtggg atgtaaac aagagagaca aaattgctga ggagctcagg gctggatggg cagggtgggg ctccacggcc cctcctc cgtcagggct tccggctgag ctgtgccagc tgtcttgc caccggct ctggggctcac accagccctg gttggccaagc ctggccggc cactggtt gctacccag gactctggg ggtgtggg aggaaggggg ccggctgggg ccgagggct caaggcgtg agggggggc cagagggaggt gccggggcag ggccggctc gctatgctt gtcacccgt gccagcgt ctgcatgctc ctctgctt gccgcgtg ctggctgca aaccgtgagg tcaaalaaa gttatttt taaaaaaa aaaaaaa aaaaaaa MERAPDGPL NASGALAGDA AAGGARGFS AAWTAVL AAL MALLIVATVL GNALVMLAFV ADSSLRTQNN FFLNLAI SD FLVGAFCPL YVPYVLTGRW TFGRGLCKLW LVVDYLLCTS SAFNVLISY DRFLSVTRAV SYRAQQGDTR RAVRKMLLVW VLAFLYGA ILSWEYLSGG SSIEGHCHYA EFFYNWYFLI TASTLEFFTP FLSVTFNLS IYLNQRRTR LRLDGAREA GPEPPEAQP SPPTPPGCWG CWQKGHEAM PLHRYGVGEA AVGAEGEAT LGGGGGGSV ASPTSSGSS SRGTERPRSL KRSGKPSASS ASLEKRMKMV QSFTQRFRL SRDRKVAKSL AVIVSIFGLC WAPYTLMLII RAACHGHCVP DYWYETSFWL LWANSAVNPV LYPLCHHSFR RAFTKLLCPQ KLKIQPHSSL EHCWK </p>	P	Homo sapiens
550	177387	G Protein- Coupled Receptor ORF4	NM_020155	<p> agcgccgtt gccctgacc gacgggagat agccggctct cccctcac ccacagacga calgaacag ccaggccagg gagctctc ctggggctc tgcacccc catctggc tctggggtag gccaggggag gagacaccc caacccat ccggtctgct ctggagaaaa gagactggcc ttocalgccc ctgagtgagg ggctggggg caggctgctt gtttcccca agggcaaggg tctctgth gagagggggg gcctgcagc caaacctct ttctctga gggcccccalt tccctctg caccctgcaa ttccacccc tccgattia ttccctggt cccggccgaca gtccctctt gctgtctcc gggtatcagg cctccctcc tgacatggag agtaacctgt ctggccctgg gctgcctg ccggctgggg ctggctggcc accctgctg accctggggg tgacagctgc ctacacacc ctgatgcc tctctctt ctccctat cccagctct ggctgggct tctgtatgg cacagcgtc tcagctatca gacgggtg ctggccctct gctgtctg ggccggctg cgtaccaccc tctctctt ctactccga galactccc </p>	A	Homo sapiens

551	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	<p>gcgcaaacgc cctggggccc ttgccttctt ggcttctcta ctgtcgccc gctgcctgc agttctcac ctgacgctt atgaacctt actttggcca ggttggtgic aaggccaagg tgaagcgctgc gccggagatg agccgaggtt tgcctgctt ccgagggccc ttgtggggg cctcgtgct ctttctctg gtaacgtgc tgtgtctgt gctctccat cggcgcgcac agccctgggc cctgctgtt gtcccgctcc tggtagcgca ctccctgic gtcatcgcg cgtctctt tctgtcctgc ctctgcctcg tggccagcgg gcgcccica ctacatcia cctggaggcc aaggtagggc tgcagcacg atgcccagggt gcttttggg tctctggca gcggttca ggggttagg</p> <p>MESNLSGLVP AAGLVPALPP AVTLGLTAAY TTYLALLFFS VYAQLWL VLL YGHKRLSYQT VFLALCLLWA ALRTTLFSFY FRDTPRANRL GPLPFWLLYC CPVCLQFFTL TLMNLYFAQV VFKAKVKRRP EMSRGLLAVR GAFVGASLLF LLVNVLCVAVL SHRRAPQWAL LLVRVLVSDS LFVICALSLA ACLCLVASGR PPLASTWRPR</p>	P	Homo sapiens
552	180956	Lysophosphatidic Acid Receptor Edg7	NM_012152	<p>cttcttaaa ttctttcia ggatgtcac ttcttctca caatgaatga ggtgtacat gacaagcaca tggactttt ttataatagg agcaacactg atactgtcga tgcctggaca ggacaacaagc ttgtgatgt ttgtgtgtt gggacgttt tctgcctgtt tatttttt tctaatctc tggatcgc ggcatgtatc aaaaacagaa aatttcatt ccccttctac taccgttgg ctaatttagc tctgtccgat ttctcgtctg gaattgccia tgaattcctg atgttaaca caggccacgt ttcaaaaact ttgacttga accgctgggt tctcgtcag gggcttctgg acagtgtctt gactgttcc ctaccaact tctgtgtat cggcggtggag aggcacatgt caatcatgag gatcggggic catagcaacc tgaacaaaaa gaggggtgaca ctgtcattt tctgtctgc gggccatcgcc attttatgg gggcggtccc cacacigggc tggaaatggc tctgcaacat ctctgcctgc tctccctgg ccccattia cagcaggagt tacctgttt tctggacagt gtccaactc atggccttcc tcatatggt tctgtgtgac ctgcgcatc acgtgtactc caagaggaaa accaacgtct tgtctcgc tacaagtggg tccatcagcc gccggagagac acccatgaag ctatgaaga cgggtgagac tgtcttaggg gcgttttgg tatgtcganc ccggggcctg gttgttctgc tctcgcagcg cctgaactgc aggcagtgtg gcgtgcagca tgtgaaaaag tggctcctg tctgtcgct gctcaactcc gctgtgaacc ccatcatcta ctctacaag gacgaggaca tgaatggcac catgaagaag atgatctgt gcttctca ggagaaccca gagaggcgic cctctcgcat cccctccaca gtctcagca ggagtgcac aggcagccag tcatagagg atagttagg ccaagggtga gcttgcataa aagcacctc ctataactg gatccttc ggccaccca ggtgatgact gcttagg</p> <p>MNECHYDKHM DFFYNRSNID TVDDWTGTL VVLCVGTFF CLFIFFSNL VIAAVIKNRK FHFFYYLLA NLA AADFFAG IAYVFLMFT GPVSKTLTVN RWFLRQGLLD SSLTASLTNL LVIA VERHMS IMRM RVHSNL TKKRVTLLIL LVWAIAFMG AVPTLGWNCL CNISACSSLA PIYSRSLVF WTVSNLMAFL IMVVVYLRV VYVKRKTNL SPHTSGSISR RRTPMKLMKT VMTVLGAFV CWTPLVLL LDGLNCRQCG VQHVKRWFLL LALLNSVNP IYSYKDEDM YGTMKKMICC FSQENPERRP SRPSTVLSR SDTGSQYIED SISQAVCNK STS</p>	A	Homo sapiens
553	180956	Lysophosphatidic Acid Receptor Edg7	NP_036284.1	<p>atggggcccg gcgaggcgt gctggcggtt ctctgttga tggacttgc cgtggcgctg ctatccaacg cacttggct gctttgtgc gctacagcg ctgagctccg cactcgagcc tcaaggctcc tctgtgtgaa tctgtcttg ggccactgc tcttggcggc gcttgcacatg ccttcacgc tctcgggtgt gatcgcgggg cggacacagt cggcgcccg cgcatgcccga gtcattggct tcttgcacac ctctctggcg tcaacgcgg cgtctgagcgt ggcgcgcgctg agcgcaagacc agtggcggc agtgggcttc ccacttgcgt acgcccggag ccttgcgacgg cgtatggccg gcttgcctg gggctgtgct tggggacagt cgttggcct ctaggcgt gcaattggct gcttgggtt tggctacagc agcgcttgc cgtctgttc gctgcgctg ccggccgagc ctgagcgcc gcgttgcga gcttcaacc gcaagctca tgcgttggc ttggtgtgc cgttggcgt gcttgcctc acctgcctc aggttgcacgg ggttggcacgc agacactgc agcgactgga caccgtacc atgaaggcgc</p>	P	Homo sapiens
554	189873	G Protein-Coupled Receptor GPR78	AF411107	<p>atggggcccg gcgaggcgt gctggcggtt ctctgttga tggacttgc cgtggcgctg ctatccaacg cacttggct gctttgtgc gctacagcg ctgagctccg cactcgagcc tcaaggctcc tctgtgtgaa tctgtcttg ggccactgc tcttggcggc gcttgcacatg ccttcacgc tctcgggtgt gatcgcgggg cggacacagt cggcgcccg cgcatgcccga gtcattggct tcttgcacac ctctctggcg tcaacgcgg cgtctgagcgt ggcgcgcgctg agcgcaagacc agtggcggc agtgggcttc ccacttgcgt acgcccggag ccttgcgacgg cgtatggccg gcttgcctg gggctgtgct tggggacagt cgttggcct ctaggcgt gcaattggct gcttgggtt tggctacagc agcgcttgc cgtctgttc gctgcgctg ccggccgagc ctgagcgcc gcgttgcga gcttcaacc gcaagctca tgcgttggc ttggtgtgc cgttggcgt gcttgcctc acctgcctc aggttgcacgg ggttggcacgc agacactgc agcgactgga caccgtacc atgaaggcgc</p>	A	Homo sapiens

555	189873	G Protein- Coupled Receptor GPR78	CAC34041.1	<p>tcgcgtgct cgcgcaccig caccaccag tcgcgcacgg ctgcctcalt cagcagaagc ggcgccgcca cgcgcacc aggaagatig gcatigtat tgcgacctic ctatctgt ttgcccglg tgcctgacc aggcctggcg agctcgtgc cttcgtacc gtagacgcc agtggggcat cctcagaag tgcctgacct acagcaaggc ggtggccgac cgtttacgt actcttgt cgcgcggcg ttccgcaag tctggccgg catgtgcac cggctgtga agagaacccc gcgcaccga tcaccatlg acagtctct ggaatggcc ggcatggc accagtgt gaaagaaacc cgcgcggcg cgtccacca caacggct gtagacacag agaatgac ctgcctgcag cagacacact ga MGPGEALLAG LLVMVLAVL LSNALVLLC AYSAELRTRA SGVLLVNL SL GHLLAALDM PFTLLGVMRG RTPSAPGACQ VIGFLDTFLA SNAAL SVAAL SADQWLAVGF PLRYAGRLRP RYAGLLGCA WGQSLAFSGA ALGCSWL GYS SAFASCSRLR PPEPRPRFA AFTATLHVG FVLPLAVL CL TSLQVHRVAR RHCQRMDTVT MKALALLADL HPSVRQRLI QKRRRHRAT RKIGIALATF LICFAPYVMT RLAEVPFVT VNAQWGILSK CLTYSKAVAD PFTYSLLRP FRQVLGMVH RLLKRTPRPA STHDSSLDVA GMVHQLLKRT PRPASTHNGS VDTENDSCLQ QTH</p>	P	Homo sapiens
556	189874	Neuromedin U Receptor 2	NM_020167	<p>atggaaaac ttagaatgc ttctggatc taccagcaga aactagaaga tcattccag aaacacctga acagcacga ggagatctg gcttctct ggagacctg ggcagggcac ttctctcc cgttgtgt gggtatlg ocaatttg tggggggg cattggcaal gtccttgt gctgggtat tctgcagcac caggctatga agagccccc caactact ccttcagcc tggcggtc tgacctct gctgtcc ttggatgcc cctggaggc taigatgt ggcgcaacta cctttctg ttcgcccg tggctgcta ctcaagac ggcctttg agaccgtg ctccctcc atctcagca tcaacact cagcgtggag cgtactgg ccatctaca cccgttccg gccaaatgc agagcaaccg gcgcggggc ctaggatc tcggcatgt ctggggctc tccgtctct tctccgccc caacaccgc atccatgca tcaagtcca ctatcccc aatgggtccc tgggtccagg ttggccacc tgcaggcca tcaagcccat gtagatcac aattatca tccaggcac cctctcta ttctacct tcccatgac tgcaltcgt gctctact acctatgc actcagc actcagca aagaagaca aatctctga ggcagatga gggaatgcaa atattcaag accctcaga aatcagca aacagatgt gtgtgtg gctatgt ttgtatctg ttggccccc ttccattg accgactt ctacgttt gggaggagt ggaggaatc cctggctgt ggtlcaacc tctccatgt ggtgtcaggt gtctctct accgtgct agctgaac cccattatc ataacctat gctcgcgc ttccaggcag cattccagaa tgtatct tcttccaca aacagtggca ctccagcat gaccacagt tgcacctgc ccagggaac atctctga cagaatgcca ctttggag ctaccgaag atataggcc ccaattcca tgcagcat ccatgcaaa ctctaccic ccaacagccc tctatgta acagatga agaacaact atcaagctt ccacttaac aaaactga MEKLQNASWI YQKLEDPFQ KHLNSTEEYL AFLCGPRRSH FFLPVSVVYV PIFVVGIGN VLVLVLQH QAMKTPINY LFSLAVSDLL VLLGMPLEV YEMWRNYPFL FGPVGCYFKT ALFETVCFAS ILSITVSVE RYVAILHPFR AKLQSTRRA LRILGIVWGF SVLFLPNTS IHGKHFYFP NGSLVPGSAT CTVIKPMWY NFIIQVTSFL FYLLPMTVIS VLYLMALRL KDKSLEADE GNANIQRPCR KSVNKMLFVL VLVFAICWAP FHIDRLFFSF VEEWSES LA VFNLVHVVS VFFYLSSAVN PIYNLLSRR FQAAFQNVIS SFHKQWHSQH DPQLPPAQRN IFLTECHFVE LTEDIGPQFP CQSSMHNSHL PTALSSEQMS RTNYQSFHFN KT</p>	A	Homo sapiens
557	189874	Neuromedin U Receptor 2	NP_064552.1	<p>tcctatgta acagatga agacaaact atcaagctt ccacttaac aaaactga MEKLQNASWI YQKLEDPFQ KHLNSTEEYL AFLCGPRRSH FFLPVSVVYV PIFVVGIGN VLVLVLQH QAMKTPINY LFSLAVSDLL VLLGMPLEV YEMWRNYPFL FGPVGCYFKT ALFETVCFAS ILSITVSVE RYVAILHPFR AKLQSTRRA LRILGIVWGF SVLFLPNTS IHGKHFYFP NGSLVPGSAT CTVIKPMWY NFIIQVTSFL FYLLPMTVIS VLYLMALRL KDKSLEADE GNANIQRPCR KSVNKMLFVL VLVFAICWAP FHIDRLFFSF VEEWSES LA VFNLVHVVS VFFYLSSAVN PIYNLLSRR FQAAFQNVIS SFHKQWHSQH DPQLPPAQRN IFLTECHFVE LTEDIGPQFP CQSSMHNSHL PTALSSEQMS RTNYQSFHFN KT</p>	P	Homo sapiens
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Ls189884

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559 189884 G Protein-Coupled Receptor 67 Ls189884 ENSMPRT1140 P Homo sapiens

MLAAAFADSN SSSMNVFAH LHFAGGYLPS DSQDWRTHP ALLVAVCLVG
FVGNLCVIGI LLHNAWKGP SMHSLNL SLADLSLLF SAPIRATAYS
KSVWDLGWVF CKSSDWFIHT CMAAKSLTIV VVAKVCFMYA SDPAKQVSIH
NYTIWSVLVA IWTVASLLPL PEWFSTIRH HEGVEMCLVD VPAVAEEFMS
MFGKLYPLLA FGLPLFFASF YFWRAYDQCK KRGTQNLNR NQIRSKQVTV
MLLSIAIISA LLWLPEWVAW LWVWHLKAAG PAPQGFIAL SQVLMFSISS
ANPLFLVMS EEFREGLKGV WKWMITKKPP TVSESQETPA GNSEGLPDKV
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DQETGEGV

560 189895 G Protein-Coupled Receptor GPR61 NM_031936 A Homo sapiens

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561 189895 G Protein-Coupled Receptor NP_114142.1 P Homo sapiens

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565	189901	G Protein- Coupled Receptor Ls189901 (HEOAD54)	CAC38933.1	ggccaccgg gcagctgcc ccacggagc acggtctcgc acgtgtggg gctgcaccac cttcaggtag cgggtgagtg cgatggctg gaggaagaca acgtggcgc tgcggtggg ggcacgcatg aagaggtiga ctttgacggc agcagcccca aagcgccagg tctcatgag gaggtagtag tccacgcgga ggggcaggtt gctgacagg aggaagtcag cggccaccag gctgaccagg aacacgtgtg tggaggtcca gggcgcgig tggatcaga agatgaagag ggcacaaatg ttccccaaca ggccaggac aaactccagg gccaggatg gfgccaggaa ggcagacac agcgaggagag aggtggggg ggcaggccct ccaggagacc cccacacagt ggtaaaggc MELHNLSSPS PSLSSSVLPP SFSPSPSSAP SAFTTVGGSS GPCPHTSSS LVSAFLAPIL P Homo ALEFVLGLVG NSLALFICI HTRPWTSTNV FLVSLVAADF LLISNLPLRV sapiens DYLLHETWR FGAAACKVNL FMLSTNRTAS VFELTAALN RYLKVVQPHH VLSRASVGAA ARVAGGLWVG ILLNGHLL STFGSPSCLS YRVGTKPSAS LRWHQALYLL EFFLPLALIL FAIVSIGLTI RNRGLGGQAG PQRAMRVLAM VVAVYTICFL PSIFGMASM VAFWLSACRS LDLCTQLFHG SLAFTYLSNV LDPVLYCFSS PNFLHQSRAL LGLTRGRQGP VSESSYQPS RQWRYREASR KAEIGLKV QGEVSLEKEG SSQG gggtatgggt taatcagca gaattgttg aacactacg acatcgtggg gatcatgcca tggaaatgcaa ctgcaaaaa ctggctggca gcagagcgct ccciggaata giataccti tccatttt atggatiga gticgttg ggaagtcctg gaaataccat tgttttac ggcatacti tctctgaa gaactggaa agcagaala ttactcti taactcti gctcgtact tagctttct gtgcacctc cccatgcta taaggatga tgcgaatgga aactggatat agggagcgt gctcgcata agcaacogat atgtgtcca tgcacaccc talaccagca tctctcti cactttac agcatagac gatactgat aataagtat cctttccag aacacctct gcaaaagaa gagggtgcta tttaatc cttggccatt tgggttttag taaccttga gttactaccc atactccoc ttataatcc tghataact gacaatggca ccactgtaa tgaattgca agttctggag acccaacta caactctati tacaalgt gtcaacact gtgggggtc ctattctc ttttgtat gtgttctt tattacaaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgcc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctcti gcttttaca cccatcag tcatcggaat tgtgaggatc gcttcagcc tggggagtg gaagcagat cagtgacatc aggtgtcat caactcti tactatgta cagggctti ggctttctg aacagtgca tcaacctgt cttctatt ctttggggag atcacttcag ggacatgctg atgaatcaac tgaagacaaa cttaaatcc ctatactct ttacagatg ggctcalgaa cttctactt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagt tgccttaact catagacatc aatcagagag tgcacagat ttaacctga tctaaagaca agttgtacc agatgtag aagaatgg gacgacaaga atgtactgt tttctcti aagaatigaa aggagtgaa ctgccttag ttggcag taaatcaaa atactaggta gataaggct tttcaatca gtgcaaaaat ggaagataa taagcaaca agtgtctgc attgatcac tggcagat gtaaaaaa aaaaaaaa MAWNATCKNW LAEEALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CISNRYVLHA sapiens NLYTSILFLT FISIDRYLII KYPREHLLQ KKEFALLISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVFISVL FTYHYVMRNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPV FYLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgc gctgccttc gcttgaggca aaagactct tgtggaagat ggaactcatt gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctg tgaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaacacatg gtctctcgg cagtgtgac tgcgttccat accgggacat ccaacacaac
566	189904	Purinergic Receptor P2U2 (GPR91)	NM_033050	gggtatgggt taatcagca gaattgttg aacactacg acatcgtggg gatcatgcca tggaaatgcaa ctgcaaaaa ctggctggca gcagagcgct ccciggaata giataccti tccatttt atggatiga gticgttg ggaagtcctg gaaataccat tgttttac ggcatacti tctctgaa gaactggaa agcagaala ttactcti taactcti gctcgtact tagctttct gtgcacctc cccatgcta taaggatga tgcgaatgga aactggatat agggagcgt gctcgcata agcaacogat atgtgtcca tgcacaccc talaccagca tctctcti cactttac agcatagac gatactgat aataagtat cctttccag aacacctct gcaaaagaa gagggtgcta tttaatc cttggccatt tgggttttag taaccttga gttactaccc atactccoc ttataatcc tghataact gacaatggca ccactgtaa tgaattgca agttctggag acccaacta caactctati tacaalgt gtcaacact gtgggggtc ctattctc ttttgtat gtgttctt tattacaaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgcc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctcti gcttttaca cccatcag tcatcggaat tgtgaggatc gcttcagcc tggggagtg gaagcagat cagtgacatc aggtgtcat caactcti tactatgta cagggctti ggctttctg aacagtgca tcaacctgt cttctatt ctttggggag atcacttcag ggacatgctg atgaatcaac tgaagacaaa cttaaatcc ctatactct ttacagatg ggctcalgaa cttctactt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagt tgccttaact catagacatc aatcagagag tgcacagat ttaacctga tctaaagaca agttgtacc agatgtag aagaatgg gacgacaaga atgtactgt tttctcti aagaatigaa aggagtgaa ctgccttag ttggcag taaatcaaa atactaggta gataaggct tttcaatca gtgcaaaaat ggaagataa taagcaaca agtgtctgc attgatcac tggcagat gtaaaaaa aaaaaaaa MAWNATCKNW LAEEALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CISNRYVLHA sapiens NLYTSILFLT FISIDRYLII KYPREHLLQ KKEFALLISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVFISVL FTYHYVMRNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPV FYLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgc gctgccttc gcttgaggca aaagactct tgtggaagat ggaactcatt gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctg tgaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaacacatg gtctctcgg cagtgtgac tgcgttccat accgggacat ccaacacaac
567	189904	Purinergic Receptor P2U2 (GPR91)	NP_149039.1	gggtatgggt taatcagca gaattgttg aacactacg acatcgtggg gatcatgcca tggaaatgcaa ctgcaaaaa ctggctggca gcagagcgct ccciggaata giataccti tccatttt atggatiga gticgttg ggaagtcctg gaaataccat tgttttac ggcatacti tctctgaa gaactggaa agcagaala ttactcti taactcti gctcgtact tagctttct gtgcacctc cccatgcta taaggatga tgcgaatgga aactggatat agggagcgt gctcgcata agcaacogat atgtgtcca tgcacaccc talaccagca tctctcti cactttac agcatagac gatactgat aataagtat cctttccag aacacctct gcaaaagaa gagggtgcta tttaatc cttggccatt tgggttttag taaccttga gttactaccc atactccoc ttataatcc tghataact gacaatggca ccactgtaa tgaattgca agttctggag acccaacta caactctati tacaalgt gtcaacact gtgggggtc ctattctc ttttgtat gtgttctt tattacaaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgcc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctcti gcttttaca cccatcag tcatcggaat tgtgaggatc gcttcagcc tggggagtg gaagcagat cagtgacatc aggtgtcat caactcti tactatgta cagggctti ggctttctg aacagtgca tcaacctgt cttctatt ctttggggag atcacttcag ggacatgctg atgaatcaac tgaagacaaa cttaaatcc ctatactct ttacagatg ggctcalgaa cttctactt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagt tgccttaact catagacatc aatcagagag tgcacagat ttaacctga tctaaagaca agttgtacc agatgtag aagaatgg gacgacaaga atgtactgt tttctcti aagaatigaa aggagtgaa ctgccttag ttggcag taaatcaaa atactaggta gataaggct tttcaatca gtgcaaaaat ggaagataa taagcaaca agtgtctgc attgatcac tggcagat gtaaaaaa aaaaaaaa MAWNATCKNW LAEEALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CISNRYVLHA sapiens NLYTSILFLT FISIDRYLII KYPREHLLQ KKEFALLISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVFISVL FTYHYVMRNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPV FYLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgc gctgccttc gcttgaggca aaagactct tgtggaagat ggaactcatt gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctg tgaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaacacatg gtctctcgg cagtgtgac tgcgttccat accgggacat ccaacacaac
568	189920	G Protein- Coupled Receptor GPR63 (PSP24)	NM_030784	gggtatgggt taatcagca gaattgttg aacactacg acatcgtggg gatcatgcca tggaaatgcaa ctgcaaaaa ctggctggca gcagagcgct ccciggaata giataccti tccatttt atggatiga gticgttg ggaagtcctg gaaataccat tgttttac ggcatacti tctctgaa gaactggaa agcagaala ttactcti taactcti gctcgtact tagctttct gtgcacctc cccatgcta taaggatga tgcgaatgga aactggatat agggagcgt gctcgcata agcaacogat atgtgtcca tgcacaccc talaccagca tctctcti cactttac agcatagac gatactgat aataagtat cctttccag aacacctct gcaaaagaa gagggtgcta tttaatc cttggccatt tgggttttag taaccttga gttactaccc atactccoc ttataatcc tghataact gacaatggca ccactgtaa tgaattgca agttctggag acccaacta caactctati tacaalgt gtcaacact gtgggggtc ctattctc ttttgtat gtgttctt tattacaaga ttgtctcti cctaaagcag aggaataggc aggtgtctac tgcctgcc ctigaaagc ctctcaacti ggtcalcag gcagtgtaa tctctcti gcttttaca cccatcag tcatcggaat tgtgaggatc gcttcagcc tggggagtg gaagcagat cagtgacatc aggtgtcat caactcti tactatgta cagggctti ggctttctg aacagtgca tcaacctgt cttctatt ctttggggag atcacttcag ggacatgctg atgaatcaac tgaagacaaa cttaaatcc ctatactct ttacagatg ggctcalgaa cttctactt catcagaga aaagtgggg gcttgtgaaa cagatgttc tacagatgaa tctgtaagcc agttacagt tgccttaact catagacatc aatcagagag tgcacagat ttaacctga tctaaagaca agttgtacc agatgtag aagaatgg gacgacaaga atgtactgt tttctcti aagaatigaa aggagtgaa ctgccttag ttggcag taaatcaaa atactaggta gataaggct tttcaatca gtgcaaaaat ggaagataa taagcaaca agtgtctgc attgatcac tggcagat gtaaaaaa aaaaaaaa MAWNATCKNW LAEEALEKY YLSIFYGIEF VVGVLGNTIV VYGYIFSLKN P Homo WNSSNYLNF LSVSDLAFLC TLPMLIRSYA NGNWTYGDVL CISNRYVLHA sapiens NLYTSILFLT FISIDRYLII KYPREHLLQ KKEFALLISL AIWVLVTLEL LPILPLNPV ITDNGTTCND FASSGDPNIN LIYSMCLTLL GFLPLFVMC FFYKIALFL KQRNRQVATA LPLEKPLNLV IMAVVFISVL FTYHYVMRNV RIASRLGSWK QYQCTQVVIN SFYIVTRPLA FLNSVINPV FYLLGDHFRD MLMNQLRHNF KSLTSFSRWA HELLSFREK tggagccatg ctccctgggc tctccggg gcgcccgc gctgccttc gcttgaggca aaagactct tgtggaagat ggaactcatt gtccatttc cagaatgat ttcaagccc atcaatggga ccgatactg ctgtctg tgaatgct tgaagaact ctgcatctct gcttgcatct tccatctac tgaacacatg gtctctcgg cagtgtgac tgcgttccat accgggacat ccaacacaac

569	189920	G Protein- Coupled Receptor GPR63 (PSP24 beta)	NP_110411.1	<p>atttgcgtg taagaaga cctacalgaa tatiacac ccaccacc tccagcalcc tgcactcagt ccattgctta gatatagtt tgaaccalc gctccacag gttgagtc ctgaccgig aatagiacag ctgigccacc aacaccagca gcatliaaga gcclaaacti gctcttcag atcaccctti ctgtataat gataicatt ctgttctgt ctittctgg gaacttggti gttgctca tggtttacca aaaaagctgcc atgaggctig caatlaacat cctctctgcc agcttagcti tgcagacat gttgctigca gtcggaaca tgcccttgc cctggtaact atcttacta cccgatggat ttgggaaa tctctgca tggatctgc talgttttc tggttattg tgatagaag agtagccatc ctgtcatca ttacalaga taggttcti atfatactg agaggcagga taagctaaac ccatataag ctagggtct gattgagti tctgggcaa ctctcttt cctttagcc taggaacc ccagctgcag atacctccc gagtcccca gttgtggtt gggatcacaa ccaatccagg ctaccaggt talgtgatt tgaattcti caattcttc ttcatacct tcttggtat acigtacta ttatgggca tactcaac cctggcac aatgcttga ggaatccatag ctacocfgaa ggatatgcc tccagcaggc cagcaaacig ggtctatga gtcgcagag accttccag atgagcaltg acatggcti taaacacgt gcttaccaca ctattgat tcttttgt gcttcattg tctctgggc cccattacc acttiacagcc ttgltggcaa attcagtaag cactttact atcagacaa ctittttgag attagcacti ggtctatg gctctgctac ctcaagctig catigaatcc gctatctac tactggagga taagaatt ccatgact tgcctgggca tgaatccaa gctctcaag ttltggccg agctccctgg tcacaaaag ccagcgatc gctctatg tctatgig tgggggac atcgagcgt ggttgaata ttggactgg ctgacattt ggttgatgt tgtttttat tgcattgaa tctcttct catagccti ccaatttatt tttttata ggttttgt atgtatgtt gtagcagtg taagaaga algttaata tagtctgt accaagaata aataatagga aagtgatlac aaatatacc tccaggctc aatagaatc ctcaattag ggtgagga ctittttt gtttgggt ttctcttga ttgatttgt ttcatagig ggaatcagga ttgtcttta ttgagctgc agttacatg aatttgggt gttcgtgig ctgtaaggt atgcttatt gatttata agactttt ttctggaa gacatgct ctittacc catatggag cc</p> <p>MVFSAVLTAF HTGTSNTTFV VVENTYMNIT LPPFQHPDL SPLRYSFET MAPTGLSSLT VNSTAVPTTP AAFKSLNPL QITLSAMIF ILVSLGNL VVCLMVYQKA AMRSAINLL ASLAFADMLL AVLNMPFAL V TILTRWIFG KFFCRVSAMF FWLFVIEGVA ILLISIDRF LIIVQRQDKL NPYRAKVLIA VSWATSFCA FPLAVGNPDL QIPSRAPQCV FGYYTTPGYQ AYVILISLIS FFIPFLVILY SFGILNLT HNALRIHSYP EGICLSQASK LGLMSLQRPF QMSIDMGFKT RAFTTILIF AVFIVCWAPF TTYSLVATFS KHYYQHNFF EISTWLLWLC YLKSALNPLI YYWRKKFHD ACLDMMPKSF KFLPQLPGHT KRRIRPSAVY VCGEHRVTV</p>	P	Homo sapiens
570	189945	G Protein- Coupled Receptor DJ287g14.2	AK027843	<p>tgtcttgaat calcttctga agctttaaa acaattgag aattggctt caagatagc ctcaatagca catcacatgt gaattata actcggaaact tggctctcag cgtatcalcc ctgtaccag ggcacaaatgc aatticaaat tttagcttg gcttccaag caataatgaa tctatttcc agatgaggti tgaagtgga caagtggatc cactggcatc tgaatttg cctccaaact tacttgagaa tttaagtcca gaagatctg tattagtag aagagcacag ttacttct tcaaaaaac tggacttctc caggaatag gaccccaag aaaaactta gtgagttag tgaaggctg cagtattgga aacallacta tccagaatct ggaagatct gttcaataa aatcaaaaa tacaagaact caggaagtg atcatccat ctgtgcttc tggatctga acaaaaaa aagtttggga ggaatggaaca cgtcaggatg tgttcacac agagatcag atgcaagiga gacagctgc ctgttgacc acttcacac ctgttgaggt ctgttgacc ttccaagaag tgcctcacag ttatgcaaa gaaacactaa agtctcact tcatcagct atatgggtg tggaaatct gctattttt cagcagcaac tctctgaca talgtgtt ttgagaatt gcaaggatg talccctcca aatcttgat gaaactgagc acagccctgc tgtctctgaa tctctctc ctcttagag gctggatcac ccttccaat gttgagtag ttgcatgc tgttgagc ctgttgcat tctctctt ggcaacctt acctggatgg ggttagagc aattcacatg tactatgct tagttaaagt atttaacat tacttgcgc gatacattt aaaaatct atcaatgct ggggttggc tgccttagig gttcagtg ttctagcag cagaacaac aatgaagct atggaaga aagtatggg aaagaagaag gttatgaatt ctgttggtt caagatccag tcatattta tgtgacctgt</p>	A	Homo sapiens

571	189945	G Protein- Coupled Receptor Dj287g14.2	BAB55406	<p>gctgggtatt ttggagatcat gttttttctg aacattgcca tggttattgt ggtaattgggt cagatctgtg ggaggaatgg caagagaagc aaccggacc ttgagagaaga aggttaagg aacctggcca ggtgggttag ctggagctt ctgtggggca tgcattgggg ttttgcatc ttggctggg gaccttaaa tatccctc atgtacctc tctcatct caattcatia caaggcttat ttatattcat cttcacigt gctatgaagg agaattgtca gaacagtggt cggcgggcatc tctgtgtgtg tagatttcgg ttgacagata actcagattg ggataagaca gctaccaala tcatcaagaa aggttctgat aatctggaa aatctttgtc ttcaagctcc attgttcca actcaacctc tcttatcc aatctaat ccagctctac caccatttc aaagggaata gcccacaga taatgtctcc tatgagcatt ccctcaaca aagtggatca ctacagactg gttccatgg acaagctct gtcacacgt ggcattgtc atggagatca aacatcatc atccctgtcc atcaggctat tgaaggctc aagggttatt gcaattgtca ttacagacaac tictataaaa atattatcat gtcagacacc ttacgacaca gcacaaagt ttatgtct ttagaanaag aatacaatct gcagaaatgt gaagatttgc aagcagtgta aactgcaact agtgtatga atgtgtctat accatggtaa ctcatatat ataaagggaag tattttgta agaaaggctt tgtgaattc agaattttc tttaatat atttttcca tggagagt ttatcacia aacttcact acgtgagat aatgacatca gtagccacag aagctatgat ttgtaataa taaattgaa tcaagagatt calaatgcag ggagagacatt caaattagag acaagggaaga agcaatgtc aggaagacc tatgatagc tcaattact ccacctaat gttatatct gatatacca ttittctcat ctttcttc aacataaac tgtcttct ttggagact taagacatt ctaaaagc aataaaaag ctcgtattc cccattgaga gtttgtcc aagggaatag aagtgaagaca tatgggtgag tcaataaat caaataat ttatgaagagc tgggtctgca atagctagtc taaaactac ttgtgtgca gttcttctg tatgtatat aagagcttga ggaggtctgg caagatagat ggtgtattat ttatggatca ggctgtgca tacaacctc gcatactat atgcagctta cctaactc agactatct gattatagct tgcgtctaa tgaattgata ggagaccaca ttgtaattg tcttagatga tggagctcat gcagttctt agaaatggt ctacagctc gctgtgtct ttacattg ctctgggtta tctgggaagt atcaggttct ggagggcaac agcatatagt gataagaaa ggagacattc tggcaagcc aatctctia aaggcaagt ccagaacctg gaactagag gctttctc ctgacgaaa aacaggtagt ttgcagctg agatatggga ggtgttttag gctacagag aaccaaggg acctctacc ttgtctgag ctcaatcag gaagctatt gcttggctcc agcagatgat gagataaga ggtatgtgggt ttattatc tttccatt tgaacatcc tgaacacca tcttgggaaga caagagcatt accagctg gcttcacg ggaggggtg taccagt</p> <p>MDFESGQVDP LASVLPPNL LENLSPEDSV LVRRQAQTFN NKTGLFQDVG PQRKTLVSYV MACSIGNITI QNLKDPVQIK IKHTRTQEVH HPICAFWDLN KNKSFGGWNT SGCVAHRDSD ASETVCLCNH FTHFGVLM DL PRSASQLDAR NTKVLTFISY ICGGSAIFS AATLLTYVAF EKLRRDYP SK ILMNLSTALL FLNLLFLLDG WITSFNVDGL CIAVAVLLHF FLATFTWMG LEAHMYIAL VKVFNTYIR YILKFCIGW GLPALVSVV LASRNNNEVY GKESYGKEG DEFCWQDPV IFYVTCAGYF GVMFFLNIA M FIVVMVQJG RNGKRSNRTL REEVLNRLS VVSLJFLGM TWGF AFAWG PLNPFMYLF SIFNSLQGLF IFIFHCAMKE NVQKQWRRHL CCGRFR LADN SDWSKTATNI IKKSSDNLGK SLSSSSGSN STYLTSSKSKS SSTTYFKRNS HTDNVSYEHS FNKSGSLRQC FHGQVLVKTG PC caccatagg caagatagat ttctatag agaatcagc ctgtaata caggttacc aggcagatg gagacaatc agattttga tactttat atgcagtag alacactgic attctgtgc caggttcat aggaatata ttgacctgt ggtattctia tggttatag aagaagaaca aacgagctgt gatatttag ataaactag ccattctga ctactacaa gttcttctc tggcactgag gatctctac tacttgaac atgactggcc atttggcct ggctctgca tggcttcti ctactgaag tatgtcaaca tgtatgcaag catctactc ttgtctgca tcaagtggtg agcatgtg ttctcatg acctttg ctccatgac tgaacacaga aataatgact gtatcatcagc attgtggct ggctgcatc ctgcttggcc tggctactc ttacactct cagaacagat gatgactct ctggcaatag gacaaatgc ttgtggatc ttactacag gaatgcaac ctggccatc ccgttgtat gatgaactt ggagattga ttgggttgt</p>	P	Homo sapiens
572	190026	G Protein- Coupled Receptor JEG18	NM_032553	<p>caccatagg caagatagat ttctatag agaatcagc ctgtaata caggttacc aggcagatg gagacaatc agattttga tactttat atgcagtag alacactgic attctgtgc caggttcat aggaatata ttgacctgt ggtattctia tggttatag aagaagaaca aacgagctgt gatatttag ataaactag ccattctga ctactacaa gttcttctc tggcactgag gatctctac tacttgaac atgactggcc atttggcct ggctctgca tggcttcti ctactgaag tatgtcaaca tgtatgcaag catctactc ttgtctgca tcaagtggtg agcatgtg ttctcatg acctttg ctccatgac tgaacacaga aataatgact gtatcatcagc attgtggct ggctgcatc ctgcttggcc tggctactc ttacactct cagaacagat gatgactct ctggcaatag gacaaatgc ttgtggatc ttactacag gaatgcaac ctggccatc ccgttgtat gatgaactt ggagattga ttgggttgt</p>	A	Homo sapiens

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P

aactccgctt ctgattgtcc tatattgtac ctggagagc gttttatcac tgcagataa atatccatg gccagagalc ttggagagaa
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 NMYASIFYLV CISVRWFVL MYPRFHDCK QKYDLYISIA GWLIICLACV
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 SIQLHAKSFV SNHTASTMTP ELC

573 190026 G Protein-
Coupled Receptor
JEG18 NP_115942.1

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A

attactgtat atgtatgtat tgcagcgtga ttcccaagg ttactttat gacagcatct tcttgattc ctacagitt attatttcc
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 gtgttcaaaag atgttgccac atataaagtg gactgtgtgc caataaagaa tcaagcttc ctatcactgg gcttaatt cacttgcaa
 ctgtgtgactg tgaatctgt cgggtggagct ttctatggaa tgcacaacat tctcaagaa gcaaaatcig ctgtcttcc agtcttgag
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 agaaggacat atggagctct ctgggtgcc tataatgcc tggagccagc aaagtgaa agttttctg tggagcttc ctggccctgg
 acccaaacac tggggagcct ttactttcc caggggaaag agttttctg tggagcttc ctggccctgg

574 190031 G Protein-
Coupled Receptor
VLGR1 AF055084

[illegible]

575	190031	G Protein- Coupled Receptor VLGR1	AAD55586.1	<p>ggaggactac acatggccta cagacactc tggatgtgg ttctctgtg cattttcaac agtctgcagg gactttatgt ttcatggt tatttcatt tacacaacca aatgtgtgc cctaigaagg ccagttacac tgggaatg aatggccac ctagccacc cagacccctt ttcacgccc ggagtggaat gccctctgct ggaggagaa tgcagagc caccagaat ctagcggg ctagggaga ggggccact gactgggaga gagatcctt ccaacaggc agtcaggcca gccctgatt aaagccaagt ccacaaaatg gagccagt cccgtctct ggaggatag gccagggtc actgatgcc gatggagagt cccaggagt tgaattta atattgat taaaactgg tgcgtctc agtgcagtg ataaatc tggtaagc agccaggagg ggggcacct gactgacc cagatgtgg agtcaggag gataccatc gccgacact accgtagca cctcactaac caticgactg agcacactt catattgta tgcgttgg tgcataact ctctaaagc atccacctg gtaataggaa cctgtgaatt gtiactggatg attaatacaa acgtgtgtg tgiattgga gtaataata ctgattgat gtagccgaa aattcactg tataagaaag gtaggagcag ttgtatcag ttaataggat gttcatatc caagatatt agtgtttt ttaatcatcc tataaggcta acatgttta atgaagtaa taatacaataa agcaatagaa tct</p> <p> MQLCIFCCCC ILFYFDLYDF GRGYDFTIQE NGLQIDQPPE IGNISIVRII IMKNDNAEGI P Homo IEFDPK YTA F EVEEDVGLIM IPVRLHGT YGYTADFISQ SSSASPGGVD sapiens YILHGSTVTF QHGQNLSPIN ISIDDNESE FEEPIELLT GATGGA VLGR HL VSRHIAK SDSPFGVIRF LNOISKISIAN PNSTMILSLV LERTGGLLGE IQNVWETVGP NSQEALLPON RDIADPVSL FYFGE GEGGV RTILTIYPH EEIEVEETFI IKHLVKGEA KLD SRAKDVLT IQEFGDPN GVVQFAPETL SKKTYSEPLA LEGPLLTJTF VRRVKGTGE IMVYWELSE FDIATEDFLST SGFTIADGE SEASFDVHLL PDEVPEIEED YVIQLVSVEG GAELDLEKSI TWFSVYANDD PHGVFALYSD RQSLIGQNL IRSIQNITR LAGTFGDVAV GLRISSDHKE QPIVENAER QL VKDGGATY KVDVPIKNQ VFLSGSNT LQLVTVMV VG GRFYGMPTIL QEAKSAVLV SEKAANSQVG FESTAFQLMN ITAGTSHVMI SRRGTYGALS VAWTTGYAPG LEIPEFIVVG NMTPTLGSLS FSHGEQRKGV FLWTFSPGW PEAFVLHLSG VQSSAPGGAQ LRSGFIVAEI EPMGVFQFST SSRNIIVSED TQMIRLHVQR LFGHSDLIK VSYQTTAGSA KPLEDFEPVQ NGELFFQKFQ TEVDFEITII NDQLSEIEEF FYTNLTSEI RGLQKFDVNW SPRLNLDVSV AVITILDND LAGMDISFPE TTVA VAVDTT LIPVETEST YLSTSKTTTI LQPTNVVAIV TEATGVSAIP EKL VTLHGT AVSEKPDVAT VTANVSHGT FSLGPSIVYI EEMKNGTFN TAEVLIRRTG GFTGNVSITV KTFGERCAQM EPNALPFRGI YGISNLTWAV EEDFEEQTL TLFLDGERE RKVSVQILD DEPEGQEFFY VFLTNPQGA QIVEGKDDTG FAAFAMVIT GSDLHNGIIG FSEESQGLE LREGAVMRL HLIVTRQPNR AFEDVK VFWR VTLNKTVVVL OKDGVNLMEE LQSVSGTTC TMGQTKCFIS IELPEKVPQ VEVYFFVELY EATAGAAINN SARFAQIKIL ESEDSQL VY FSVGSRLAVA HKKATLISLQ VARDSGTGLM MSVNFSTQEL RSAETGRTI ISPAISGKDF VITEGTLVFE PGQRSTVLDV ILTPETGSLN SFPKRFQIVL FDPKGGARID KVG GTANITL VSDADSQAIW GLADQLHQPV NDDILNRVLH TISMKVATEN TDEQLSAMMH LIEKITTEGK IQAFSVASRT LFYEILCSLI NPKRKDTRGF SHFAEVTEFN AFSLLTNVTC GSPGEKSKTI LDSCPYLSIL ALHWYPOQIN GHKFEKGED YIRPERLLD VQDAEIMAGK STCKLVQFTE YSSQQWFISG NNLPTLKNKV LSLSVKGOSS QLLTNDNEVL YRIYAAEPRI IPQTSICLLW NQAAAASWLSQ SQFCKVIEET</p>
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GPR57

580 190188 G Protein- AB049405
Coupled Receptor
LGR6

A Homo
sapiens

DGFCCKFHTSF DMMMLRLTSIF HLCSIAIDRF YAVCYPLHYT TKMTNSTIKQ
LLAFWWSVPA LFSFGLVLSE ADVSGMQSYK ILVACFNFCA LTFNKFWGTI
LFTTCFFTPG SIMVGIYGI FIVSKQHARV ISHVPEPTKG AVKHLSSKKK
DRKAAKTLGI VMGVFLACWL PCFLAVLIDP YLDYSTPILIDL VVWLRYF
NSTCNPLIHG FFNPWFQKAF KYIVSGKIFS SHSETANLFP EAH
ggccagtcga gggagagcgc atcagctgt ctgcgagctg ctctgagctg gggctgtccg ccgttccggg ggaactggag
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581

190188 G Protein-
Coupled Receptor
LGR6

P

Homo
sapiens

ttccctttcc tctctccccc tgggtgaatg atggctgctt ctataacaaa tacaacaaa actacagcagt gtgatctata gcagatggc
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MRLEGEGRSA RAGQNL SRA G SARRGAPRDL SMNNLTTELQP GLFHHLRFLF
ELRLSGNHL S HIPGQAFSL YSLKILMLQN NQLGGIPAEA LWELPSLQSL
DLNYNKLQEF PVAIRTLGR L QELGFHNNNI KAPEKAFMG NPLLQTHFY
DNPIQFVGRS AFQYLPKLHT LSLNGAMDIQ EFPDLKGTTS LEILTLTRAG
IRLLPSGMCQ QLPRLRVLEL SHNQIEELPS LHRCQKLEEI GLQHNRIWEI GADTFSQLSS
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LKGNLALSQA FSKDSFPKLR ILEVPIAYQC CPYGMCASTFF KASQWEAED
LHLDEESSK RPLGLLARQA ENHYDQDLDE LQLEMEDSKP HPSVQCSPTP
GPFKCEYLF ESWGIRLAVW AIVLLSVLCN GLVLLTVFAG GPVPLPVKVF
VVGAIAGANT LTGISCGLLA SVDALTFGQF SEYGARWETG LGCRATGFLA
VLGSEASVLL LTLAAVQCSV SVSCVRAYGK SPSLGSVRAG VLGCLALAGL
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AYIKLYCDLP RGDFAVWDC AMVRHVAWLI FADGLLYCPV AFLSFASMLG
LFPVTPEAVK SVLLVVLPL ACLNPLLYLL FNPFRDRLR RLRPRAGDSG
PLAYAAAAGEL EKSSCDSTQA L VAFSDVDLI LEASEAGRPP GLETYGFPSV
TLISCOQPGA PRLEGSHCPE PEGNHFGNPQ PSMDGELLRL AEGSTPAGGG
LSGGGFQPS GLALLHTY

582

190414 G Protein-coupled
Receptor GPR101

A

Homo
sapiens

atgacgtca cctgaccaa cagcagcgc gagagtaaca gcagccacac gfgcaltccc cctccaaaa tgcacatcag
ccctggccccc ggcacatccc gctcaacgt gctggtaic ttctgcgcg cctcttctt cggcaacata gfgctggcgc
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catgtgaag aagtttctt gcaaggaata gcccgcgaa gaaagatagc acccagacct gcccggaa gaaaggttggga
ctgaaggcaa gatgtccct tctacagatt ctgtacttt tocttga

583	190414	G Protein-coupled Receptor GPR101	CAC33098.1		<p>MTSTCTNSTR ESNSSHTCMP LSKMPISLAH GIRSTVLVI FLAASFVGNL VLALVLQRKP P QLLQVTRNRFI FNLLVTDLLQ ISL VAPWVVA TSVPLFWPLN SHFCTALVSL THLFAFASVN TIVLVSVDYR LSIHPLSY SKMTQRRGYL LLYGTWIVAI LQSTPPLYGW GQAAFDERNA LCSMIWGASP SYTILSVVSF IVIPLIVMIA CYSVVFCAR RQHALLYNVK RLSLEVRVKD CVENEDEEGA EKKEEFQDES EFRQHEGEV KAKEGRMEAK DGLSKAKES TGTSESSVEA RGSEEVRESS TVASDGSMEG KEGSTKVEEN SMKADKGRTE VNQCSIDLGE DGMFEGEDDI NFSDDVEAV NIPESLPPSR RNSNSNPPLP RCYQCKAAKV IFIIFSIVL SLGPYCF LAV LAVVVDVETQ VPQWVITIII WLFLOQCH PYVYGYMHKT IKKEIQDMLK KFFCKEKP PK EDSDPDLPGT EGGTEGKI VP SYDSATFP</p>	Homo sapiens
584	190418	Inflammation- Related G Protein-Coupled Receptor EX33	NM_020370	A	<p>taactgtcca ccagaaagga ctgctcttg ggtgagthga acttctcca tatagaag aattgaagc tgaagaaac agcctciatc A atgtggaaca gctctgagc caactctoc tgcctaccatg agctctgct gggctatcgt tatgttgacg ttatgtgggg gggtggggg gcttgacag gcacgtggg caatgctc accctactg ccttgccat ccagcccaag ctccgtacc gattcaact gctatagcc aacctacac tggctgact cctctactg acgctcttc agcctcttc tgtggacac tactccacc tgcactggc caccggg acccttgcga gggattgg gctctctt ttgcctcca atctgtct calctgacc ctctgctca tgcactggg acgtactct ctaattgccc accctaaagt ttctcccaa gtttccag ccaagggat agtctggca ctgtgagca cctgggtgt gggcgtggc agcttgctc cctctggcc tattatc ctgttaccg tagctgac ctgcagctt gaccgctcc gagccggcc ttacacacc atctctagg gcatctact tggctggg ctacagctg ttggctat ctatgctc atccaccgc aggtcaaac agcagcacag gcactggacc aatacaagt gcagacga agcatccat ccaacatgt ggccaggact gatgaggcca tgcctggcg ttccaggag ctggacaga ggttagcatc agagagacc agtgaaggga tttactga gccagtcagt gctgccaca ccagacctt ggaaaggag tcatagaag tgggagacca gatcaacagc aagagagcta agcagatggc agagaaagc cctcagaag catctgcca agccagcca atiaaaggag ccagaaagc tccggattct tcatggaat ttgggaagt gactgaaatg tgtttgtg tttctctg cttggcgt agctatcc cttctgtct gctcaacat ctgagoca gactcaggc tcccgggtg gtccatgc ttgcgcca cctacactgg ctcaatggt gcataacc tgtctctat gcagccatga accgccaat ccgccaagca tatggctcca tttaaaaag agggcccg agtttccata ggctccattia gaactgtgac octagtacc agaattcagg actgtctct ccaggacca agtggccagg taalaggaga ataggigaaa taacacatgt gggcatctt acaacaatct ctccagacc tccacaatca agtctctca tcaatgac aatgtttcag cctagactg ccaaggagt attaatat attataaat gaattctgt ctttaaaaa aaaaaaata aaaaaaaga aaaaaata aaaaaaata aaaaa</p>	Homo sapiens
585	190418	Inflammation- Related G Protein-Coupled Receptor EX33	NP_065103.1	P	<p>MWNSSDANFS CYHESVLGYR YVAVSWGUV AVTGTVGNVL TLLALAIQPK LRTRFNLLIA NLTLADLLYC TLQPFSDVT YLHLHWRTGA TFCRVFGLL FASNSVSILT LCLIALGRYL LIAHPKLPQ VFSAGIVLA LVSTWVVGVA SFAPLWPIYI LPVVCTCSF DRIRGRPYT ILMGIYFVLG LSSVGFYCL IHRQVKRAAQ ALDQYKLRQA SIHNSHVART DEAMPGRFQE LDSRLASGGP SEGISEPVS AATTQLEGD SSEVDQINS KRAKQMAEKS PPEASAKAQP IKGARRAPDS SSEFGKVTRM CFAVFLCFAL SYPFLLLNI LDARVQAPRV VHMLANLNTW LNGCINPVLY AAMNRQFRQA YGSILKRGRPR SFHRLH</p>	Homo sapiens
586	190419	G Protein- Coupled Receptor Ls190419	AJ303165	A	<p>ctttgtcca gagctaaacc agttttct ctctocacag caaatatct gacagatc atctctccc agctggggc aagaagacag aagctctct acaactatct ctggcaact gctgtcccg acatctgtt cctctttc atagtttg ttgacttct gttegaagat ttcatctga acaigcagat gcctcaggc ccgacaaga tcatagaagt gctgggaattc tcatccatcc acactccat atggattact</p>	Homo sapiens

587	190419	G Protein- Coupled Receptor Ls190419	CAC33085.1	LCFRAKPVFL LSTANILTVI ILSQLVARRQ KSSVNYLLAL AAADIL VLEFF IVFVDFLLED FILNMQMPQV PDKIEVLEF SSIHTSIWIT VPLTIDRYIA VCHPLKYHTV SYPARTRKVI VSVYTICFLT SIPYYWWPNI WTEDIYSTSV HHVLWIWHCF TVYLVPSCIF FILNSIIVYK LRRKSNFRLR GYSTGKTTAILFTITSIFAT LWAPRIIMIL YHLYGAPIQN RWLVHIMSDI ANMLALLNTA INFFLYCFIS KRFRT	P	Homo sapiens
588	190427	Cysteiny Leukotriene CYSLT2 Receptor	NM_020377	aaagtictia agtttgaagc gtcagctca accaaacaaa ttaalggtia ttclacatic aaaaacagg aaatttaaat ttattatgaa atgtaatgca gcatgtagia aagactaaac cagtggttta aaactcaact ticaagagaa agatagiatat gctccctgtt tcaitaaac ctagagagat gtaalcagta agcaagaaagg aaaaaggagaa altcacaag taacttttg tgcitgttc tttaaacc agcalggaga gaaaatttat gtcctgcaa ccatcatct cagtatcaga aalggaacca aalggaacct tcaagcaaaa caacagcagg aactgcacaa ttagaaacti caagagagaa tttttccaa tigtatcti gataatit tcttgaggag tcttgaggaa tgggtgttgc atalatgttt tcttgaggcc ttataagaaag tccacatctg tgaagttti catgtaaat ctggccattt cagatctct gttcataagc acgtctctct tcaagggtcga ctattatct agaggctoca attggatatt tggagactg gcttgcaggaa ttatgtctia ttctgtat gtcaacatgt acagcagtat ttatttcttg accgtgtcga gttgtgtgc ttcttgcca atggttacc ccttgcgt tctgcagt accagcatca ggaaggtctg gactctctgt gggatcatat ggaatctat catggcttcc tcaataagc tcttgagacag tggctctgag cagaacaggca gtgtacalc atgcttagag ctgaatct ataaatgic taagctgcag accatgaact atattgctt gggtgggggc tgcctgtcgc cattttcc actcagcalt tgtatctgc tgcaltgic gtttctgta aaggtggagg tccagaaac ggggctgtcgg gttctcaca ggaaggcact gaccaccalc atcalacct tgcaltcti cttctgtgt tcttgccct atcacacat gaggaaccgt cacttgacga catggaaagt ggggttatgc aagagacagac tgcataaagc ttgggtatc acactggcct tggcagcagc caatgctctg tcaatctc tgcctattia cttgtctggg gagaatttia aggacagact aaggtctgca ctcagaaaag gccatocaca gaaaggcaag acaaggtgtg ttccctgt tagtgtgtg tgaagaaag aaacaagat ataagagct ctatagtag accgtctt gtatctt gtccaltc altacatc agtccaaa tgcattgta ttatcac tcccaacaaa tgttgattct taattattag ttaccattia ttgtgtia taagacctac ttcaaaaatt ttattcagt ttatticagt tgttgatgt taatgaggaa tacaaggagaa aaaaatocct ctagaatct gggggctgaa atalcagact gggaataaat gcaaaagcaca ttggatctia cttnctca gataatgaac cagatctctg gccatcagg cttctaat tctcaaaag agccacaact tcccagcti ctccagctcc cctgtctct tcaatccti gagaatagc aaactaacgac gclactggaa gccocagagc agaaaagaaag cacatocctaa gattcaggga aagactaact gtgaagaaagg aggtctgtct atacaagc agcatcaagt cccaagttaa gacagtga gaaaaggggg agaaaggttg gacgaaaga gaaactggcaa taagtggggg aaggaagaaat ttatttgc attggagag aggttcaac acactgaagg caacctatt tctctgtc aggggtatag gaaggagagc aaaaatagg gaggatctg gggcatgccc ctaggaaatg aagaatgt gtatagaag gaaggggggt calcaaggac atgtatca aatttcti gaaatgagc ttatgtgacc tgcctgagc tctcttcc ataatcat tgggatggaa gccaaaata aaaggaggtc ctctgaggt taggggtgag cactaaggg aagatggag tagagggcaa ataggcaaaag ttgtgtcact cctgaatc tattaact tccgagag atgagtaggg agatgtcgc ttcccttg agatagta gaaaacact agataggtg agaggttct ttctgtccat tgaacaaagg ctaggatc taccactac tatccatc accatgtac tgaacaacat tgaatgcagt	A	Homo sapiens

589	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	<p>ctccctgcag ggagattat gccaggcact ttacattgt tgatccatt accaaagctc tgagtccat ttacagctg aagaaatiga agcttagaga aaltagaag cttgttaag ttacacag tagtaagagt ttataaat tcctgacaga agtgtgct gggtgctc cccaccacia cctgttaaa ctocaggaa gattgtga aagtctaat aagaagctg ctctacc aattctcc cctctcac tctcaaga aaacaaaag ttcttca gattgtga ctataglac agtaagggt ggaggtgata tggcatcig aaagtga ggactaag cagctcat actaac</p> <p>MERKFMSLQP SISVSEMEPN GTFNNNSNRN CTIENFKREF FPIVYLIF WGVLGNGLSI P YVFLQPYKKS TSVNVFMLNL AISDLLFIST LPFRADYYLR GSNWIFGDLA CRIMSYSLYV NMYSSIFYLT VLSVVRFLAM VHPFRLLHVT SIRSAWILCG IIVILMASS IMLLDSGSEQ NGSVTSCLEL NLYKIAKLQT MNYIALVVC LLPFFTLSC YLLIIRVLLK VEVPESGLRV SHRKALTTII ILIIFLFCF LPYHTLRTVH LTTWKVGLCK DRLHKALVIT LALAAANACF NPLLYYFAGE NFKDRLKSAL RKGHPQKAKT KCVFVSUWL RKETRV</p>	Homo sapiens
590	190437	G Protein- Coupled Receptor C5L2	NM_018485	<p>ctgtgtgoc agtgtctga caatctaa ctctcaagg actccaaaa ccagagacac caggagcctg aatgggaac gattctga gtaacagta tgggaattac agagacctt cggaccgcc ttgtgactg cttgattggc cctgctggc catgacccg ctggcgtgg cccgctccc actgtatgcc gccatctcc ttgtgggggt gccgggcaat gccatgttg cctgggtggc tgggaagggt gccggccgga gggtgggtgc cactgtgtg ctccactgg cctggcga ttgtgtgc tgtgtgtc tgccatctt ggcatgtgcc atgtccgtg gggtgggtgc ggcgtatgtt gcagtgggt gtggggcgt ggcctcatc atctgtga ccatgtatgc cagctctg ctctggcag ctctatgtt gcactgtc gcactgtc ttctggct tcgggctgc ctgtgtgtt acgtgtcagg gggtgtgcgg ggtgacagg gcctgtgggg cagctggac actggcctt ctgtcaccc tgcctcgc catctaccg cgggtgcacc agggagcatt ccagccgg ctgcagtgtg ttgtggacta cggggctcc tcagcaccc agaagcgtt gactgtcatc cgtgtttt ttgcttct gggtggcctg ggtggcgtgg ccagctgcca cagtgtcctc ctgtgtgtgg cagccgagc ctggccgacg ctgggacacg ccatgtgtt gggtgtt gtgtgtgg caccatcca cctgtgtgg ctgtgtctca ctgtgtggc cggacacg gcactctgg ccaggccct gggtgtgaa cccctatgc tgggctgtgc cctgtcac agctgtctca atccatgt ctctgtat ttggggagg ctcaactcc ccgtgtatg ccagctgct gtactgggc cctgaggagg tccagggcc aggacgaag ttgtgacag aagaaatcca ccagcaatga cctgtgtgc gagaaggagg ttatggctgg agagacatgt tgggtgtgta tcttctac tcatctaca agactggtt caggcatagc tggatcagg agctcaatga tgtctcat ttatcttc ctcatcaa cagatatca tcatgcatc gctatgtga aggcctttt aggcactaga gatatagcag tgacaaaac agacaaaat cctggc MGNDSSVSYEY GDYSDLSDRP VDCLDGACLA IDPLRVAPLP LYAAIFLVGV PGNAMVAWVA GKVARRRVGA TWLLHLAVAD LLCCLSLPIL AVPIARGGHW PYGAVGCRAL PSILLTMYA SVLLLAALSA DLCLALGPA WWSTVQRACG VQVACGAAWT LALLTVPSA IYRRLHQEHF PARLQCVVDY GGSSTENAV TAIRFLFGFL GPLVAVASCH SALLCWAARR CRPLGTAIVV GFFVCWAPYH LLGLVLTVA PNSALLARAL RAEPLVGLA LAHSLNPML FLYFGRAQLR RSLPAACHWA LRESQGQDES VDSKSTSHD LVSEMEV</p>	Homo sapiens
591	190437	G Protein- Coupled Receptor C5L2	NP_060955.1	<p>atgtgggccc ctgtgtctt gggtctcagc ctctgggtc tctgtcac tgggacgggg gccctattgt gctgtcaca gcaactagg algaaagggg actagtgct gggtggggcgt ttcccctgg gcgagggcga ggaggtgtgc ctccgagcc ggacacggcc cagcagcct gttgtcaca ggtacagagg tgggtcgggg tgggtcgggg tcaagggtgac caggtgtggg gtgtcttga gttggggccg aggtggccat ctgcgtgtt gttggccc aggttctct caaacggct cctgtgggca ctggccatga aaatggcgt ggagggagat aacaacaagt cggatgtctt gccggggctg cgtctgggtt acgacctt tgatagctgc tggagagcctg ttgtgggcat gaagccagc ctatgttcc tggccaaagg aggcagccgc gacatggccg</p>	Homo sapiens
592	190438	G Protein- Coupled Receptor Ls190438	LG94114		Homo sapiens

[illegible]

Homo sapiens

P

593 190438 G Protein- ENSP000000080
Coupled Receptor 322
Ls190438

**G Protein-
Coupled Receptor
Ls190438** ENS 322

594	190484	G Protein- Coupled Receptor Ls190484	LG95579	<p>AQDPVKPWQL LENMYNLTFH VGGLPLRFDS SGNVDM EYDL KLWVWQGSVP RLHDVGRFNG SLRTERLKIR WHITSDNQVRP QACAKQPVSR CSRQCQEGQV RRVKGFHSCC YDCVDCEAGS YRQNDDDIAC TFCGQDEWSP ERSTRCFRRR SRFLAWGEPA VLLLLLLSL ALGLVLAALG LFVHRDSPL VQASGGPLAC FGLVCLGLVC LSVLLFPQSP SPARCLAQOP LSHLPLTGCL STLFLQAAEI FVESELPLSW ADRLSGCLRG PWAWLVLVLA MLVEVALCTW YLVAFFPEVV TDWHMLPTEA LVHCRTRSWV SFGLAHATNA TLAFCLFLGT FLVRSQPGRY NRARGLTFAM LAYFITWVSF VPLLANVQVV LRPAVQM GAL LCVLGILAA FHLPRCYLLM RQPLNTEPF F</p>	<p>Homo sapiens</p>
595	190484	G Protein- Coupled Receptor Ls190484	ENSMPT2619	<p>ictgactggc tggttctctt gctgcccctg ggctcttca ctgctcttgg ggcccttggc cctcagctgg ggccctggcc cggggccgcc tctggcgggg tgcctctggg gcttctct tcaagagcag gaggctgggc tgggtcttca agggccctg gggttagatg cgaagatggg gttggggag cttatcaca ggagctgggc acagagctgg cagcagctgg agggctctg acgtatgtg ctgctctggg ctggggcaca gaactgact gttgctgggc catgaggttc agctgtggct gggtctggg atccgactgt ggctggggcc taggggttcag ctgtggctga gctgtgggat ccgactgtgg ctggaggttg gggttccct gaggctgggc cagagatcc atctgtgact ggccctctgc catggctt ggcaaggttg gacctcaga atctagctgg gtctgtggct cagtggggct gaagctggcc ggccctctct cgaagagagc tggcggagag gacgagagca cggagcgca cagggttcgg aggtggcac tggccatgag gcaagagagag gggtgagag agctgtgag taggatcagg tagtggag agaccaggcc ctccagagc aggttagccag agtagagct ccacagggag gccaggtaga gcaagctgggc cagctggag ggcagctca ggaccacata ggctgacaga atgttcttgg ccacaggggc gaagccccgg caggctggcgg gctgtgtg gggtggcag gtgcgacagg ctgtggctgg ggttagagcag tggcagagaga gcaagagag gaaagggcagg aagccccca ggacctcag catctcagc gacagctct cgtgttcca gaagtccagg cagatgacca ggtctgttcca ccagagcgca ggctcgggga agaccagcca gggtcagctg aagagtgtgg ccagaccoca gacaccggcg cagaccagga gggtcagggc gactggcggg tggccaggggt accagtgtgg gacacagggcc agcagggcagc ggtctgaggt gaggggcgggcc agcagggaga ggccggagga gtaggacacg cccatagaga agtagtagaa gctggcagga gctgttcca gggtccagctg tccccatgc cggatctia ggaatggaa ggccgctgct gccagggaca agaatgaca gaggggcagg ctgagcagga gcaagggcag acgcgtcca gctccatgcc gggtctggga gcccggcagg cagccatca accattggc tggcagccca agggagcag gggcccacag gaagaccgtg tccagccac ctgggggga ggaagtcata tcatcagct ctgtgggggg cctgtggcca gtggcaccca ggtcagctc catgtgtg ttccatggg gttccagag tctctgag cagggaggtg gttctgtg aatcaatgt ggtgtgaag accgagtag ggaagagacgg tctgtgcat ctccagggca gtcacatcc ctccctggc catgtcat accctttg taattatct atgccaagg ctgaagtg atgacctat ggagcttca tacaatcac ttacag</p>	<p>Homo sapiens</p>

596	190595	G Protein- Coupled Receptor SH120	NM_016334		A	Homo sapiens
				agcaccitggg aaaaaggcaga ccgtgtgtgagg gggccctgtgg cccagcgttg ctgtggccct ggggagtgagg aagtggaggc aggagcctc ctacacctic gcataggtt tctgtatcga ctcacagcalt atgattacct cccaaatact atttttggg ttgggtggc tttttcat gggcaatig tttaagact atgagatagc tcatgtgtt gacaggtga tcttccgt gacgtttgca ttcttgca ccattgtga gctcalcat ttgaaatct taggagattt gaatagcagc tccgttatt ttacitggaa aatgaacctg tgcgtaatic tgtgtacct ggtttcatg gtttcattt acatiggcta ttatttg agcaatacc gactatgca taacaacga ctgttttt cctgtctt atggctgacc ttatgtatt tctcttgaa actaggagat ccccttcca ttctagccc aaaaatggg ccatacact tagaacagt catcagccgg gttgtgtga ttggagttag tctatgct cttcttgc gatttggtc tgtcaactgc ccatacact acatgtctta ctctcagg aatgtgactg acacagatat tctagccctg gaaaggcgac tgcgtcaaac catggatatg alcalaagca aaaaagaaag gattggcaatg gcacggagaa caatgtcca gaagggggaa gtcataaca aaccatcagg ttctgggga atgataaaaa gtttaccac ttacgtalca ggaagtgaat atcttact taitcaacag gaagtggalg ctitgggaga atlaagcagg cagcttttc tggaaacagc tcatctat gtaaccaagg agagaataga atactccaaa acctcaagg ggaaatatt taatttct tctctatta ctgtgttg aaattttca tggtaacct caatattgti ttgatcgag ttgggaaac ggaactctgc acaaggga ttgagatcac tgtgaatat ctgggaatcc aattgatgt gaagtttgg toccaacaca ttcttcat tctgttga ataatacgt tcaatccat caggaggatg ctgactac ttaccaagt cttttatgoc atcttagca gtaagtctc caatgtatt gttctgtat tagcacagat aatggggcatg tactttgt cctctgtct gctgatacga atgagtagc ctitagaala ccgaccata atactgaag tcttgagga acttgagatc aacttctac accgttgggt tgaigtatc ttccigtica ggcgtctc tagcatac ttcttatt tggctcaaa acaggacca gagaaggcaaa tggcaccttg aacttaagcc tactacagac tgttagggc cagtggttc aaaaattaga tataaggagg ggggaaatg gaaocagggc ctgacttt ataaacaac aaaaigtctat ggttagcatt ttacactica tagcalact ctccctc aggtgtatct atgacctga gtagcatcag ccagaacatg agaggagaa ctactcaag acaactica gcaagagaga tccgtgttg atagggct ggttagaggg cggagaggag ccaagaaact aaagggtgaa aatacactgg aacttgggg caagacatgt ctatggtagc tgaagccaaac acgtaggat tccgtttaa ggttcatg gaaaaggta tgccttgc ttgagatga ctaataaaa tcaagagactg t MSFLIDSSIM ITSQILFFGF GWLFFMRQLF KDYEIRQYVV QVFSVTFAP SCTMFELIF P EILGVLNSS RYFWKMNLC VILLVFMV PFYGYFVVS NIRLLHKQRL LFSCLL WLTF MYFFWKLGDV FPILSPKHGI LSIEQLISRV GVIGVTLMAL LSGFGAVNCP YTYMSYFLRN VTDITDILALE RLLQTMDMI ISKKRRMAMA RRTMFQKGEV HNKPSGFWMG IKSVTTSASG SENLTIQOE VDALEELSRQ LLETADLYA TKERIEYSKT FKGYFNFLG YFFSYCVWK IFMATINIVF DRVGKTDVPT RGIEITVNYL GIQFDVKFWS QHISFILVGI IIVTSIRGLL ITLTKFFYAI SSSKSSNVIV LLLAQIMGMY FVSSVLLIRM SMPLEYRTII TEVLGELQFN FYHRWFDVIF LVSAISSILF LYLAKQAPE KQMAP		
597	190595	G Protein- Coupled Receptor SH120	NP_057418.1		P	Homo sapiens
				aggtcgcagg cggcgtgtgc tggagcgggg gcccggccgg cgcgcagag atgtgactgc ggcgcgaagg cagctggagc gtcggcgtc cggcccgccg ggggtcgat gttcgtggca tcaagagaa agatgagagc tcaccaggtg ctaccttcc tctgtctt cgtgatacc tgggtgctt ctgaaaacgc cagcacatcc cgaaggctgtg ggcgtggact cctccctcag tacgtgtccc tgtcggaact ggaagccalc tggggcatig tgggtggggc ggtggccggg gcccggccccc tgaicacact gctcctgatg ctacctcc tgggtcggtt ggccttcalc aaggagaagg agaaagagag cctgtgggc ctccacttc tgttctct ggggaacctg ggccttttg ggcgtgactt tgccttcalc atccaggagg acgagagacat ctgctctgc cgcgccttcc tctggggct ccttttgc cttgtctt cctgctgt ggcagagca tggcgcgtgc gggaggtctgt gggagcatggc acgggccccg cgggctggga gctgggtgggc ctggcgctgt gcttgaact ggtgcaagtc atcagctgc tggagtggct ggtgtcacc gttgtgtg acacaaggcc agcctggcc tacgagccca tggactttgt gattggccctc		
598	190599	G Protein- Coupled Receptor GPCR5B	NM_016235		A	Homo sapiens

atctacgaca tggtaactgct tgggtcacc cggggccagg ccccttcac tctgtggcgg aagttcaaga ggtgggaagct
 gaacggggcc ttcccttca tcacagcctt cctctgtg ctaactgggg tggcctggat gacacgtac cttctggca atgtcaagct
 gacagagggg ggtccttggg acgacccac cttggccac acgtggcgg ccaagtggtg ggtcttggc atctccag
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 atgcgggaga cggccttcca ggaagacgtg cagctggcgg gggccctat ggaagacacg gctcttcca tggatgaaca
 caatgagct ctcgaacag cagattcc caagggcagg tggggaaaaa gaccacagg gacttgggg aaaaagaccca
 ggcctcgtt tagaagcaac gttatcag caacttggat ggcctgtg ctaacgggtg ggaacalccc aactgtcctg
 ccaagtcaca caggaaagaca ccttgggtga aagactttaa gttccagaga atcagaatt ctttaccga ttggctccc tggctgtg
 ttcttgagg gagaatcgg taacgttgc cgaacaggc cggctcacag ccaaggaaat tggaaatct agccaagggg
 attctgtga aatgtgaaca ctgacgaact gaaagcttaa caccgactgc cggccctcc cctggccacac acacagacac
 gtaataccag accaactca atcccga aataagcaaa agtaattgc aatagtat aggtctactg gaaatgtgg
 ctgggaagac ttttcatcc tctgggggtga gaaagaaac aaattcacag ctggggggcc agactgggtg tggggagg
 tggggggctc ccacttcat cactctcc cagcaagtc tggacccagg gtagcctctt ggaagatgac gttgcgtga
 ggacaalgg ggaattggc accggctgc ctgggtgtt gcaatttca gggggggcag gagaagtaag gagggtgg
 gttggattcc aaggtgaggc ccaactaat cgtgggggtga gctttatagc cagtgaagg ggaagggaac tggcaltg
 caaagaagag gcccttggg tgaagagtg accatcat tggaaagtg atcaaacct gttcttca tggggctct gcttaagt
 ctatgtgag aacacaggcc cggcccttc ccttgatgag ccatagaat attctgtg gggggcagcag tcccttct
 ccttgatc ctgcctct tctacat accgggtg ctcaaatcc tctccact ttatccct attacttca agagctccaa
 tggggcttc agctgaagc cctccggga ggaaggttg aaggcagcga ccaggcagg tttccgga tgaagcac
 tagcagggtc tcaagggttc ccaatgag gcaagatga cctcgcgt cctcacagg agtgacact cgggtctt
 ccgttgctat ggtgaat cctggatga atgcatcaca tgaagggtc tttgtctt tgaagggtt gggggatatt tttttgt
 ttctgcag gttcatgaa aacagcct ttcaagcc attgtctg tcaagttc caicgtct gagaagca tttctgt
 attagcatt tgaacatc cggccatca aagccccc gttcttgc cgtttggc agcataacct ctacatcga tcaaaagcag
 agtttaacc tgaagcag gaagtata atgagggtg gttcttgc agatacttca atcatatc tcttttct ataaaaac
 ccataagct ttaacttga aaaaaag aaaaaggtga gtttgggg gcccggggag gactgaccg ttcataagcc
 agtactgt agctgagat gttcaataa acccttgat atttcaaa aaaaaaaa aaaaaaaa
 MFVASERKMR AHQVLTFL FVTSVASEN ASTSGCGLD LLPQYVSLCD
 LDAIWGIVE AVAGAGALT LLLMLLLVR LPFIKEKEK SPVGLHFLFL
 LGTLGLFLT FAFIQEDET ICVRRFLWG VLFALCFSL LSQAWRVRL
 VRHGTGPAGW QLVGLALCLMLVQVIAVEW LVLTVLRDTR PACAYEPMDF
 VMALYDMVL LVVTLGLALF TLGKFKRWK LNGAFLITA FLSVLIWVAV
 MTMYLFGNVK LQQDAWNDP TLAITLAAG WVFVIFHAIP EIHCTLLPAL
 QENTPNYFDT SQPRMRETAF EEDVQLPRAY MENKAFSMD EHNALRTAGF
 PNGSLGKRPS GSLGKRPSAP FRSNVYQPT E MAVVLNGGTI PTAPPSHTGR HLW
 gttgcttga ggtggggga gggccccc ctgagtcg gagaagcag caggcagg gctccggag gagggtcgg
 ctggaaggaa ccgtctgc ttgtctac acttgcgaa atgtctcga gcttactac atagcatat ggtatataa aatgaatgc
 aaggaaacaa aaataacata atgaagga gtaaaagta aataaag gaaatcatc agtaagga gaccactgg
 agaggacaga aaatgaaga gttttatc atgtatatt cagcaggct tcttgaatt taataaaaa tatgactgct ctcttcag
 agaatcttc tttaagac cagtacgc aaacaaacca gcccctagac gtaataatc tctattct gatacatc tgggaatat
 taataat ccttacta ggaatgaga gaaaaaac ctgcaaat ttatggat attttgcat ttactaga tctgtgac

Homo sapiens

P

NP_057319.1

G Protein-Coupled Receptor GPCR5B

190599

599

Homo sapiens

A

NM_014373

G Protein-Coupled Receptor GPCR150

190602

600

601	190602	G Protein-Coupled Receptor GPCR150	NP_055188.1	<p>ttttactttt ggtaaacatt tccattatatt tgaattttgta ggatttttga cttttaagca ttaggttcac taaataccac atc'tgcctat tactcaaat latitctctt actataggct ttitggcattta tccagtttgc ctgacagcti gtaagatta ttgcctgaat ttcttaaaa caaccaagct ttcatthaag tgcataaat latmtatt cttacagta atttaattt ggattttcagt ccttgcttat gttttgggag accagagcat ctaccaagc ctgaaggcac agaattgcta ttctgtcctat tgccttctt atgtcagcat tcaagttac ttgctgtcat ttttcattgt gatgatttta ttgtagctt tcaaacctg ttgggaagaa gttactctt ttgtacagc taccagata acttctata tgaatgaac latcttat ttctctttt catccaccic cagtatact gtagatcta aaaaatatt ctatccaag ccatgtgct gttttticag tacttggtta ccatgttac tactcaggt aatcattgt ttacttaag ttacattcc agcatatatt gtagatgaata ttccctgtt atactgttc aatagtttc tcatgttac agtlatgg ttatgttc acaagctta ttataagac atggattac ctttggatcc attgtcaac tggaaagtct gcttattcc acttaact cctaatttt agcaaatga aaagcctata tcaataatga tttghta taataa aaagtacag ctgtcataag atcaatatt tatgaacaga aagaactcag gacataat aaataaaact gaactaaac aactttgcc cctgactga tagcatlta gaattgtct ttgaagggc tataccagtt atiaaatagt gttttttt aaaaaaaaa taattccaag aagttttat agttattac ggacacata ttacaaatat tactttgta ttacacaaa aagtgataag agttacatt ttgctatact gatgtttgt ttactaaaa aaactactgg atgcaactg ttatgaaat ctgagatttc actgacaact ttaagatac aaactaaaaa ttattataa atgtcaaat gtaagcaga aaaaaaa</p>	P	Homo sapiens
602	190623	Melanopsin	AF147788	<p>MTALSSNCFS FQYQLRQTNQ PLDVNYLLFL ILGKILLNI LTLGMRKNT QNFMETFCI SLAFVDLLL VNISILYFR DFVLLSIRFT KYHICLFTQI ISFTYGLHY PVFLTACIDY CLNFSKTKL SFKQCKLFYF FTVLWISV LAYVLGPAI YQSLKAQNAY SRHCPFYVSI QSYWLSFFMV MILFVAFITC WEEVTTLVQA IRITSYMNET ILYFPFSSHS SYTVRSKKIF LSKLIVCFLS TWLPFVLLQV IIVLLKVQIP AYIEMNPWL YFVNSFLIAT VYWFNCHKLN LKDIGLPLDP FVNWKCCFIP LTIPNLEQIE KPISIMIC</p> <p>ggttccacc catcagaca cagcttcag ccaaggacgc ttgggcagca gtagtataag gagacatctg gaggcttgagg cttccacgc ggccctctg gctccattgg atggcagggct cggggcagac gaggctgccag gtgggtgtgg gtagcaagg tttggagcaa gagggccalg ggagggcccc ccagttgggac agaaagcagag gagtgagggg gttggggccct gagtgagatci cagtgacc cgcacaggct gcatgtcacg gccatggag aaaggacatt gtcagggtgag acgtggggct ccaaggccc caggctgggg gttccagtc ctctgaltt tccctgaggt gctccttga ggccgtgggc accctgggta tgtggattcc cgcctcalt gtccacctga caagcattc tccctggac tccgtgctt gctccatcac ctgcacccct tcttaatag cagggtggag agtgggggtcc acattgaalg ggaagttgtg ttgactcaga attgctcca gctgtggagg attgttaaac ccttacata aaacgcaagc agctggcatl gagcctagggg acagaaagaa aagcggccc ctacagctca ccttgcccc aggggtggcct ctgtgagcca aagccctgaa gtggaaagac ctacggagga aggcagctctg agccatgggc ttggcagctgc agtgaaatga gtctccgctc ccagtgagc ttgtccact tctctgctc aaacctgggg ctccagggga actgttttga aagactgggg gaactctgg aagaggagtg alactctgt ccactcagg gctccacac tccagcact gtggcagggac atggccccca cttaggaga ccgctggccc gtcgggctcc cctaaacgca gctctgtg gtagggctag ccgagagcagc cctccctgga agccgtgtgt tgaacttcc ttctccag ctctctgc ctctctag acagggcagag ggagcaggccc gggttcccc ccactctga catcagca acttgatca ggctgtcagg cctgggtgag ttctccagac tctccata aggttttaa aaactttat actttaaaa ttctggccc gccagtgag tccagctgt aatctggca ctttgggaag ccgaggtgtgg ttgataccct gaggtcagga gttcagagat agcctggcca acatgtgtga ctctgctc tctaaatat acaaaaaa gccaggtgtg gtggcagtg cctgtaacc cagtactcg ggagggctgag gcaaggagat ttgttgacc ttggagggcgg aagttgcat gagctgagat tgcaccattg cactcagc ttgggtgacag agcagagctg tctcaaaa aataaaaaa aaaaaaaa acttttat caaaaaaca gcaaaagccc cctgtgtgalt gatactacc ctactgtac altctcttg tgtctcatc ttgaaagg</p>	A	Homo sapiens

[illegible]

sapiens

GTWAAA WVPL PTVDPDHAH YTLGTVILLV GLTGMLGNLT VYTFCSR
 LRTPANMFII NLA VSDFLMS FTQAPVFFTS SLYKQWLFGE TGCEFYAFCG
 ALFGISSMIT LTAIALDRYL VITRPLATFG VASKRRAAFV LLGVWL YALA
 WSLPPFFGWS AYVPEGLLTS CSWDYMSFTP AVRAYTMLLC CFVFFPLLI IYCYIFIR
 AIRETGRALQ ITGACKNGE SLWQRORLOS ECKMAKMLL VILLFVLSWA
 PYSVAL VAF AGYAHVLTPY MSSVPAVIAK ASAIHNPIY AIHPKYRVA
 IAQHLPCLV L LGVRRHSR PYPSYRSTHR SILTSHTSNL SWISIRRRQE
 SLGSESEVGW THMEAAAVWG AAQQANGRSL YQGLEDLEA KAPRPQGHIE
 AETPGKTKGL IPSQDPRM

Homo sapiens

A

atggatagag gcccagacca gtctacttc tccggcaatc actggttgt ctctcgtg tacttctca ctctctgtt ggggctcccc
 ctcaactgc tggccctgtt ggctctgtt ggaagctgc agcccgccc ggtggccgtg gacgtgtcc tgcataact
 gaccgctcg gacctgtcc tgcgtgtt ccgtcttc cgtatgttgg aggcagccaa tggcatgcac tggccctgc
 cctcaact ctgccactc tctgattca tctctcac caccatctat ctaccgcc tctcttggc agctgtgagc attgaacgt
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 gacagtaa cactacag gctgtgaac tggggccag gtagccgtg ctgaagaa g
 MDTPDQSYF SGNHWFVFSV YLLTFLVGLP LNLALVVFV GKQLRRPVAV
 DVLLNL TAS DLLLLFLPF RMVEAANGMH WPLPFLCPL SGFFFTTY
 L TALFLA AVS IERFLVAHP LWYKTRPRLG QAGLVSVACW LLASAHC SVV
 YVIEFSGDIS HSQGTNGTCY LEFRKDQLAI LLPVRLEMAV VLFVPLIIT
 SYCYSRLVWI LGRGGSHRRQ RRVAGLLAAT LLNFLVCFGP YNVSHVVGVI
 CGESPAWRYI VTLLSTLNSC VDPFVYFSS SGFQADFHEL LRRLCGLWGQ
 WQJESSMELK EQKGEEQRA DRPAERKTSE HSQGGCTGGQ VACAES
 caagactgt cctcttgc gactacaca gattggagcc atggcttgg agcagaacca gtaacagat tattatag
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 gtactcaac tgccttaaa catttcaag tctggcag ccatagat catctact ctagacca gctgcaacal
 gacgaacgc atggatcag ccatcaagi cacagaagc atcgactt ttacagctg cctcaacca atctttatg

Homo sapiens

P

MDTPDQSYF SGNHWFVFSV YLLTFLVGLP LNLALVVFV GKQLRRPVAV
 DVLLNL TAS DLLLLFLPF RMVEAANGMH WPLPFLCPL SGFFFTTY
 L TALFLA AVS IERFLVAHP LWYKTRPRLG QAGLVSVACW LLASAHC SVV
 YVIEFSGDIS HSQGTNGTCY LEFRKDQLAI LLPVRLEMAV VLFVPLIIT
 SYCYSRLVWI LGRGGSHRRQ RRVAGLLAAT LLNFLVCFGP YNVSHVVGVI
 CGESPAWRYI VTLLSTLNSC VDPFVYFSS SGFQADFHEL LRRLCGLWGQ
 WQJESSMELK EQKGEEQRA DRPAERKTSE HSQGGCTGGQ VACAES
 caagactgt cctcttgc gactacaca gattggagcc atggcttgg agcagaacca gtaacagat tattatag
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Homo sapiens

A

NM_005304

G Protein-Coupled Receptor GPR41 & GPR42

190627

604

NP_005295.1

G Protein-Coupled Receptor GPR41 & GPR42

190627

605

NM_016557

C-C Chemokine Receptor 11

190701

606

607	190701	C-C Chemokine Receptor 11	NP_057641.1	MALEQNQSTD YYYEENEMNG TYDYSQYELI CIKEDVREFA KVFLPVFLTI VFVIGLAGNS MVVAIYAYK QRTKTDVYI LNLAVADLLL LFTLPFWAVN AVHGWVLGKI MCKITSALYT LNFVSGMQFL ACISIDRYVA VTKVPSQSGV GKPCWIIFC VWMAAILLSI PQLVFTYVND NARCIPFR YLGTSMKALI QMLEICIGFV VPFLIMGVCY FITARTLMKM PNKISRPLK VLLTVVIVFI VTQLPYNIVK FCRAIDIYS LITSCNMSKR MDIAIQVTES IALFHSLNLP ILVFMGASF KNYVMKVAKK YGSWRRQRQS VEEFPDSEG PTEPTSTFSI gatttggga gttatggcc agtgcocag tgaacgggg acacggagag ggaagcttg cgttgatcat aaggacttag ggactccgag ctggcttga gaaccttgg acgocagatg ctgcttac gggcttgact cctcaactc gctcaaaagc agccgttag ctaactct gcttccagg gcttgcctgc ggcaccaggac ggccttagta cccagtctc gggctctc ttcagtact gctttgaag ctccacgca gttcccgag gctagctctg caacaaact ggggtaaaac gtttatct aggtctgtc cccagaaca tgaacttag gtaactgtc atgcagatgg ccgatgagc cactatagcc accatgaata agggcaggc cggggacaag ctacagaac ttctagct ggtcccgag cttctggag cggccaacac gtagtgaac gcgtctgc agcttccga ctgtgtgtg gtagtggggc tggagtggc gggagggcggc ccggccaggac atccccggg cagcggcggg gcaagagagc cggacacaga gggccgggtg cggatttca tgaagtggt gtagtgggtg gtagtggcc tgggtgtg gggcaacctg ctgtctct accitgaaa gtagtgcag ggtggcgca agtctctat caaccttc gtcaacaac tggcgctgac ggaattttag ttgtgtca ccttgcct ctggggggg gagaacgctc ttgactcaa atggcccttc ggaagggoca tttgttaagt cgtgtcatg gtagcttca tgaacatga cggcagcgtg ttcttctca ctgccaatgag tttgagcgc taccattcgg tggcttggc tctgaagag caccggaccc gaggacacgg ccggggcgac ttcttggcc gggagcttgg ggaacagcgc ttcttctgg ccaaggcgt gttgtgtg alcttgggtt tggccgct ggcttctg ccaagtgtca ttcttccac caggtgtcaa gtagtggggc agggagctgtg cctgtgtgtt ttccggaca agtgtgtgg ccggcgacagg cagtcttgc tgggcttca cacttgcag aaggtgtgt tgggtctgt gcttggcgtg ggcatcatt tctgtgtc cctgtgtg gttgtgtc tggcgcttca tggcgagccg ccgctggcgg ggggacaaaag gggggggcgc gtagccggga ggaagccga ccggagccag cggccggaga ctgtcgaag tccaatc agtgaacatc gttgtctgt ccttctct gttgtgtg cccaaccag cgtcaacc ctggagcctc ctatcaagt tcaacgggt gccctttag caggagatt tctgtgtcca ggtatagcg ttccctgtga gctgtgtgt agcgcatcc aacagcttcc tcaaccctg ccttactgc ctgtgtggc gtagtctcg caaggcgtc aaggtgtgt tttgtgtgtc tgggtgtct tggatcaca gcatggccc cttaccgccc actaacagc cggagcagc gtagcagggc cggcgccgccc cgaagcggcc	P	Homo sapiens
608	190705	G Protein-Coupled Receptor SALPR	NM_016568	 <		

609	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	<p>ggcagagccgg acctgctctia ciaccacct ggcgtctgtgg tciacagcgg ggggcgctac gaactgctgc ccagcagctc tgcctaciga cgcaggcctc aggcaccagg cgcgcgctgc gggcaaggcg ggcctcccc ggcggtaaag aggtgaaagg atgaaggagg gctgggg</p> <p>MQMADAATIA TMNKAAGGDK LAELFSLVPD LLEAANTSGN ASLQLPDLWW ELGLELPDGA PPGPPGSGG AESADTEARV RILISVYVW VCALGLAGNL LVLMLKSMQ GWRKSSINLF VTNLALTDQ FVLTLFWAV ENALDFKWPF GKAMCKIVSM VTSMNMYASV FFLTAMSVTR YHVSASALKS HRTRGHGRGD CCGRSLGDSC CFSAKALCVW IWALAALASL PSAFSTTVK VMGEELCLVR FPDKLLGRDR QFWLGLYHSQ KVLGFLVPL GIILCYLLL VRFIADRRAA GTKGGAAVAG GRPTGASARR LSKVTKSVTI VLSFFLCWL PNQALTTWSI LKFNAVPPS QEYFLCQVYA FVSVCLAHNSCLNPVLYC LVRREFRKAL KSLLRRIASP SITSMRPFTA TTKPEHEDQG LQAPAPPHAA AEPDLLYYP GVVYSGGRY DLLPSSAY</p>	P	Homo sapiens
610	190711	G Protein-Coupled Receptor GPR85 (SREB2)	NM_018970	<p>ggcagagga tttactgct gctcaagat cagattatta cgtagagaa gattttiat tttgtttca ttaacagat attataagc aaaaagcatg cagaanaaga agcagacgti tiacattggg aattatgaa agcgtgtcgt clagtgttg gtaggagaac tgggaagtg tigttaaaa ttltatca cctccaaaa caaaactct cggaaatgtt aanaagaa aatgcalgat tciagaggca ttctaaaga cccagctgc aggttttg gttgtgttg talatocga cegtittggac tggtiaggc tiactgagag ctccattct ggaaagccti acaagactga ggaatalcag acitggcaac accgggaac gttccttgc agcacagaag caatctct cccatctc gcalttctg atggcaaac aaglggaaga aaggggaag catgactga gatcagatca gttcttttg tggattiat tticagtaa atgtatgat ctatcttc ctgtttta talctagatc alpagacttg actgagctg talcttalc ctccatccat clatggcga clatagccat gcagctgaca acatttuga aaatcttcg cctctaaag ctttcigaa actgactcc tgggtttca taataggagt cagcgtgttg ggcacctcc tgaictccat ttgtctagtg aaagalaaga cttgtcatag agcacctiac tacttctgt tggatcttg ctticagat atctcagat ctgcaattg ttccattt gttttcaact ctgtcaaaa tggctctaac tggactialg ggaactgac ttgcaagtg atggcttc tgggggttt gttctgtc cacatgcti tcatgctct ctgcalcagt gtcacagat acttagctat cgcacatcac cgtcttata caaagaggct gaacttttgg acgtgtcttg ctgtgtctg talgtgttg acttctgt tggccatgac atttcccc gtttagacg tgggcacta ctatcatt agggaggaag alcaalgac ctccaacac cgtctctca gggctaaga ttcttagga ttatgtct ttctgtct catctocia gccacacagc ttgtctact caagctgata ttctgtcc acgatcgaag aaaaalgaag ccagtcagc ttgtagcagc agtcacagc aactggacti ttatggcc tggagccagt ggccagggcag ctgccaatg gcttagcagga ttggagggg gtccacacac accacactg ctgggcalca ggcaaatgc aaacaccaca ggcaagaaga ggtatgtgt cttagacgag ttcaaatgg aaaaatgg agaaagaaat cagcagaatg ttctataaa tgaatttct gttttaac ttggggggc cctactgtt ggcctgttat tggagaggti ttgcaagagg gctgttagta ccaaggggat tttaacagc tctgtcttg algtgtttg ccaagcagc aatcaatct ttgtctgca ttctcaaa caggggagctg aggcgtgti tcagcacac cttctttac tgcagaaat ccaagttacc aagggaacct tactgtgta talgagggag catctgtaaa tcttagcct tggaaact aacctctct gcttagcaat tggggccat agccatatt tgaagaagaaa ttcaagaatg gaatcagcag tttaaggat ttgggcaaca ttctgcagtc ttgcaatag ttacattata alctattt aaatctcaga gttactctgc tgaactgcag caaagggttg taatlaaga gggactigaac cactgtcccta agttttta tgggtcaaa aactagataa tgaaggtagc aggtgtctaa latcagcti aatgtctg tatgtacta catatgaaa aatcaaaa acaattagc attggacatc ttaataaati aagttagat gtaggtaaatg tgtgataaa aactaattt agaaagtuga agactttaaa acatttata ctactatgt ttgcaaga ctaaaatt tggggactia aagtactga atccataaa gacgtgccaa tgaattatg gaatalcaca cttaaaac cgcctgtgaa gttctgggga gcaltcaaa gcagtatatt ggttcaacti agagttaatt tttttgat taalacttg ctattctaa</p>	A	Homo sapiens

611	190711	G Protein- Coupled Receptor GPR85 (SREB2)	NP_061843.1	<p>alaccactt cctcalciac tagaagatt gtagcattg aacigtatha tgggtttt gtagttgg tataaagttt ttcaattca</p> <p>ttataattt acaaatgcta gatattggc tgggaggcaa catlaattgt accagccgtt cacaactgag cagttctaatt aatgcagaat</p> <p>aaataacatgt tgcctaaag ggtaactag tatcctcat ctatttagc actggagcaa alagccaagg gaaalcaaat cagtaactgg</p> <p>tcatggcat gcatlaaaa gtagcaggaa gatcattat tacttttcc ttittttc acatggttg aaacttaag tgcacatcac</p> <p>tgaataatg agattttt ctacgggtg ctaccttc taaacttc taagaagcag cagttgatg tatgttala tttaagica</p> <p>gctgcaagg ggagaccaca gcttagtat gacatctgc acaatttg agcattat tctactgaag gcacagttt gtttatact</p> <p>tcgcacatt caggtatg gtaattaaa ttattcagt tttaactgt ttaagcttat attatgtt cttgtattt agaaatacat</p> <p>tagagctgt gagtcatt cttaagata cagatgttg aactcaata taaagtgtga ttggcaaaa ttacocgtg tagocigtta</p> <p>attttctga aataagttt acatttttg cacatacaa cgtttttt aatttggag gcaagcacaa actagggaaga ctactttat</p> <p>tatgttttg cttttgat ctgtagcta ctatattca gaciggaaat gtagaata taaatcaaat aatgcigtala aactgacata</p> <p>atattatcg taaaagcatt attgttatt ttattaat catcctcta ttattcta atgcacag tagtttaga tgttacctg</p> <p>cttagtaat tggctcagaa tttaataa aacatcacac ttaatttg agcatagtag catagaatt tgggtttcta aatatacaac</p> <p>ttgaagaag aatggttac actaacatta tgaacaaact agaaaaagt attatttg ttgctttct gttgtttt ttattgttg</p> <p>gtttttga agtttttt ttitttgta ttgataatt aagatttaga atctaatac acagaattcc atattgtat agtactctg</p> <p>taagagaat atcaataaa ataaagaaa taaatcaatg aatgttca atgttataa aaaaaaaa aaaa</p> <p>MANYSHAADN ILQNLSP LTA FLKLTSLGFI IGVSVVGNLL ISILLVKDKT</p> <p>LHRAPYYFL L DCCSDILRS AICFPFVFN S VKNGSTWTYG TLTKKVIAFL</p> <p>GVLSCFHTAF MLFCISVTRY LAIAHRYFT KRLTFWTCLA VICMVWTLVS</p> <p>AMAFPPVLDV GTYSFIREED QCTFQHSFR ANDSLGFM L LALILLATQL</p> <p>VYLKLIFFVH DRKMKPVQF VAAVSQNWTF HPGGASGQAA ANWLAGFGRG</p> <p>PTPPTLLGIR QNANTTGRRL LLVLDEFKME KRISRMFYIM TFLFLTLWGP</p> <p>YLVACYWRVF ARGPVVPGGF LTAAVWMSFA QAGINPFVCI FSNRELRRCF</p> <p>STLLYCRKS RLPREPYCVI</p>	P	Homo sapiens
612	190725	G Protein- Coupled Receptor GPR26	LG93120	<p>aggttagtg agctcttc caggtgccc atcggtccc actgggggt gctgtocaag tgcctgggt acagcaaggc</p> <p>cgcaccgac ccttttgt actcttact gcgacaccag taccgcaaaa gctgcaagg gattctgaac aggtctctgc</p> <p>acagcgtc catcaccct tctggctca caggcgtc tcacgccag aacattctgc cgggtctga g</p> <p>MNSWDAGLAG LLVGTMGVSL LSNALVLLCL LHSADIRROA PALFTLNLTC</p> <p>GNLLCTVNM PLTLAGVVAR RQPADRLCR LAFLDTFLA ANSMLSMAAL</p> <p>SIDRWVAVVF PLSYRAKMRL RDAALMVAYT WLHALTFPA ALALSWLGFH</p> <p>QLYASCTLCS RRPDERLRF VFTGAFHALS FLFSFVLCC TYLKVARFHC</p> <p>KRIDVITMQT LVLVDLHPS VRERCLLEEQ RRRQRA TKKI STFIGTFLVC</p> <p>FAPYVITRLV ELFSTVPIGS HWGVLSKCLA YSKAASDPFV YSLLRHQYRK</p> <p>SCKEILNRLL HRSIHSSGL TGDSSHQNIL PVSE</p>	A	Homo sapiens
613	190725	G Protein- Coupled Receptor GPR26	LR26	<p>atggccaaca ctaccaggaga gccaggagag gtgagcggcg cctgtccc accgtccga tgcattag tgaagctgtt</p> <p>actgtggga ctgattatg gcgtgagcct ggcggggaac gccatttgt cctgttgtt gctcaaggag cgtgccctgc</p> <p>acaaggctc ttactactc ctgtggacc tggcctggc cgaaggcata cgtctgcg tctgtccc ctttgtctg gcttctgic</p> <p>ggcaggctc ttatggacc ttatggcac tcatgtgcaa gatttggcc ttatggcg tgcctttg ctccatcg gcttcatgc</p> <p>tgtttcgtat cagcgtacc cgtacatgg ccatggoca ccacgcttc tacgcaagc gcatgacact ctggacatgc</p> <p>ggcgctgtca tctgcatggc ctggaccctg tctgtggoca tggccttcc accgtctt gacgtgggca cctacaagt</p> <p>tattggggag gaggaccagt gcatcttga gcatgctac ttcaaggcca atgacagcgt gggctcatg ctatgttgg cttgtctcat</p>	P	Homo sapiens
614	190741	Sreb3	NM_018969	<p>atggccaaca ctaccaggaga gccaggagag gtgagcggcg cctgtccc accgtccga tgcattag tgaagctgtt</p> <p>actgtggga ctgattatg gcgtgagcct ggcggggaac gccatttgt cctgttgtt gctcaaggag cgtgccctgc</p> <p>acaaggctc ttactactc ctgtggacc tggcctggc cgaaggcata cgtctgcg tctgtccc ctttgtctg gcttctgic</p> <p>ggcaggctc ttatggacc ttatggcac tcatgtgcaa gatttggcc ttatggcg tgcctttg ctccatcg gcttcatgc</p> <p>tgtttcgtat cagcgtacc cgtacatgg ccatggoca ccacgcttc tacgcaagc gcatgacact ctggacatgc</p> <p>ggcgctgtca tctgcatggc ctggaccctg tctgtggoca tggccttcc accgtctt gacgtgggca cctacaagt</p> <p>tattggggag gaggaccagt gcatcttga gcatgctac ttcaaggcca atgacagcgt gggctcatg ctatgttgg cttgtctcat</p>	A	Homo sapiens

615	190741	Sreb3	NP_061842.1	<p>ggcagctacc catgctgt acggcaagct gctctctc gaggatcgc accgcaagat gaagccagcgc cagatggcgc cagccatcag ccagaactgg acaftccatg gtccgggggc caccggccag gctcgtgccg acitggatcgc cggcttggc cgtggggcca tggccacca cctgctgggt atccggcaga atggccatgc agccagccgg cggctacitgg gcatggcaga ggtaaaaggg gaaaagcagc tggccgcat gcttacgcg atcacatgc tctcttgcct cctctggca cctacatgc tggctgcta ctggcgagtg ttgtgaag cctgtgctgt gcccaccgc taactggcca ctgctgttg gatgagcttc ggccaggctg ccgtcaacc aattgtctg ttctgtcta caaaggacct caagaagtc ctgaggactc acgccccctg ctgggcaca ggaaggctcc cggctccag agaaccctac tggatgt ga MANTTGEPEE VSGALPPSA SAYVKLVLLG LIMCVSLAGN AILSLVLKE RALHKAPYYF LLDLCLADGI RSAVCFPFVL ASVRHGSSWT FSALSCKIVA FMAVLFCFHA AFMLFCISVT RYMAIAHHRF YAKRMTLWTC AAVICMAWTL SVAMAFPPVF DVGTYKFIRE EDQCFEHRY FKANDTLGFM LMLAVLMAAT HAVYGKLLLF EYRHRKMKPV QMVPASQNW TFHGPATGQ AANWIAFG RGPMPPTLLG IRQNGHAASR RLLGMDEVKG EKQLGRMFYA ITLLFLLWS PYIVACYWRV FVKACAVPHR YLATAVWMSF AQAANVPVFC FLNKNLKKK LRTHAPCWGT GGAPAPREPY CVM</p>	P	Homo sapiens
616	190742	G Protein-Coupled Receptor H7TBA62	E32367	<p>gagctctgc cacagactag agcagggaag ggggggaagc cggcgataga ggttagcagg aatgtaat tatcaggagc aggaacagaa ctgaggcat gccaggctc acacaggcc tcataggcc agtgtccca gtggggagga aacaggaaagc tgtgacttc tctcttct cctccctgc tcttagctc aaggctacgc ctgctgagat gaattccaac ctgtttgat tggcacitgt ccttggcat ggtaagcc tctcagacc ctctggcc aaacaccca aactctct tgaataat attacataa attgctatt cacatgatt cctcattg atcaigccac tctgtgaag cagacttacc tgaataatt aagaacagaa acaggcttag gggagtaag taacttcc agtcacagg ctagtgaaga gcaggctcgg gactccgcag cctccgctct ttctctct ggacacctat gctgattcc tgccttag ccactcca gggcccttgc ttggggccc aagggaacac ttitggcaga ggaggagggc ctctgcacg taaggaaag aggcagctct agtttgctc ctgcatc tgggacaggg aaactccag ctcttccct ggggtggagg ctggggctg cctccatag cggggtaact ctctcttc cctctctct ctgccattia gaggccctct tacaggcggg cgcagcaca tataccigg cattcaggct gggctcggc ctggccacc taccaccaat ctggaccaac aggaaagggg tgggtgtcc ttccacac cctccctc aggtgtgggc ggtggccagg gctcaccaga gggccagag aagcattiaa ttctacagcc tcttccag agcctttagt gggcttggc agtctggcag acactgtcag acctcttc tcagcaccac caatctctga tggcctgga tggccacat caatcttct gctctccac ccacattct ctggggccaat gctctccggag gcatgtgtct gaggctgcat gatctccga tgcctgcca attccatg ccctggagctca tgggttggccct gggctatggg ctgtggggg ccaatggctt gctgggaat ttggcggtgc tgggtgact ggttaactgt gcccggagag cccctggccc accttcagac acctgtct tcaactggc tctggcgagc ctgggactgg cactactct ccccttggg gcagccgagt cggcactgga cttaactgg ccttcggag gttggccctg caagatggtt ctgaaggcca ctgtctcaaa cgtctatgccc agcattcttc tcatcagc gctgagcgtt gctcgcact ggggtgggtggc catggctggc gggccagagga cccactctc actctctg gcccgaatag ccacccctggc agtgtggggc gggctgccc tgggtgactgt gcccacagct gctctggggg tggagggtga ggtgtgtgtgt gttggccctt gctctgctg ttcccagc aggtactggc tgggggcca ccaagctggcag agggtgtgtg tggcttcat ggtggccctg gggcgtcat caaccagcta cctgtgctg ctgggcttcc tgcagcggc gcaacggcgg cggcaggaca gcaagggtgt gggccgctct gtccgcatcc tgggtggctc ctctctct tgcgtttc ccaacatgt ggtcactc tgggggtgtcc tgggtgaagt tgaactgggt cccctggaca gtaattcta lactatcag acgtatgtct tccctgtcac tactgtgt gcacacaga alagctggcc caacctgtg ctgtactgtc tctgtggggc gggagccggg cagggtctgg caggcacctt cagggtatct cggctcgaggc tgtggcccca gggcgaggagc tgggtgcaac aggtggccct</p>	A	Unidentified

617	190742	G Protein- Coupled Receptor H7TBA62	ENSP00000201 359	<p>aaagcagagta ggcagagcgggt gggcgcgcaag caacccccgg gaggagccggcc ctttaccct gctaccaac ctggcagagag ggacacccgg gtagagggggc caagctggaac acactctct tctgagatc caccagagt aggtacctgg ggtcctggggg agaaagctgcc ctcttgcca gctgcaaggg cctcaggggga aaaaagctga tcttgatcc ccaactcgg gtaggggaa tggggggggc ggggggctcag atcagagctg gtagtagaa agcttaagct ttatttgga gtaggggaaag aaagagatct gagaaataac ctctgggatta tccaaat gcttgacct ttatccag ttccactcc agttcagat ggaacaaaag gattcgtgc tccattctg ctgcgaag aatacttag aaaaactcc laagggtct aggttaaga atcagaggtc agtgccatc tctctgta ccaccccc acctcaaac agggatccc ttgtctct cgggataca ggcacaaaat gccagcttcc cctgtctca ccttaacatc tcaaggggga ccactgaac ttgctgctg cagagggctc agctgcaaaa gctgtagttc cctgaaaggg atgccagggt tgggggtatg ctgggaattc cagcacctgc cagggccctgg gtagaaaac ctgggtgctga cgggaggtgccc tgggtctc ccttaaatc aggtattga agaaaggaag ataatgacaa gtcacagaca tgggtgggggt gaaagggggt gagcgaataa agagggggggg gggctggggg aacagggctgc aggtagagcc agaaagagcag agactccaga aagtggtgct agttctccct gcccacaaag caaagccag agtaicaat tgaagtgtag agcacctgga ttacagctt tacctcagc aaattactt acctctgt acctactgt tctaacgt aaaaagggt actaaagatt taacagtgaa atatactgt agctattat ctgttgt tgttgttt ttgagagag agtctctg tctggccag gctgggaggtc aggtgggtg tctcagctca ctgcaacctc ggttccggg gttcaagcga ttctctgccc tgaactccc gtagagctgg gactacaggc tccgctaac atgctggccc aattttgt aattttat agagacagag ttacacata ttggccaggc tgggtcctaaa cttctgacct ctatgtatg tccacacct gcccacctgc gcttccaaa gtgtggtatg tacaggcgtg agccacccga cccgtgtag ctattatct tacacacct gtaaaatgga gacagagagga tgggagggaaa taagctgga gctggggat ggggaggggg aacatgct cagctgggaat ggttgatct gctctgaat gggtgataat gaagctca cataaagaa tcaaggggtg gcccgaagc cctctgga ggtgtgtct ccagggacag gggtctct tgggtctgt atgagatgc atcaatgata aaggttagcc atcagaagga ttctagga ggcagccct agaaaggagg gaggcagagg gaagatgagg tagagctc</p>	P	Homo sapiens
618	190743	G Protein- Coupled Receptor GPRC5D	NM_018654	<p>atglaaagg actgcatga gtccactgga gactattt tctctgga cggcggagggg ccagggggga tcaatcggga gtccctggcc atactggga tgggtgac aatttgta ctttagcat tcttctct catgggaaag atccaaagct gtagccaggt gaatgtctc occaccagc tctctct cctgaggtgc ctggggctct tgggactgc ttgcttc atcagagc tcaatcaaa aacggcccc gtagctact ttctttgg ggttctctt gctctggt tctagct ttagctcat gcttccaatc tagtgaagct gggtgggggt tgggtctct tctctggag gacaattctg tgcattgta ttgttgcaag tctgtgcaa atcattatg ccactgagta tgggtctc atcatgacca gaggatagat gttgtgaa atgacacct ggcagctcaa tgggtgacttt gttgactcc tgggtatg ccttctctg atggccctca cattctgt ctccaaagg acctctg gggcgggtg gaaatgggaag cagcatggaa gggtcatct taccatg cttcttcca tcatatg ggtgggtgg atctccagc tctgagagg caacccgag ttccagcgac agccccagg gtagcagccg gctgctgca ttgctggtt caccacgca tgggtttct tgggtctgta calgtctct gagctgca tttctacag atc-gttaga caggaggtgccc ctttaagg caatgctgc cccgtcacag octaccaaa cagcttccaa gtaggaagacc agggagctc caggccoga gacagtatg gtagctggga gtagtagca ttaactcat atgggtctcc catcagccg cagactgtg atccacaca agaggtttc atccacagg cttaaactaag cccccagca</p>	A	Homo sapiens

619	190743	G Protein- Coupled Receptor GPCR5D	NP_061124.1	gatcaggag gaggataa MYKDCIESTG DYFLLCD AEG PWGIIIESLA ILGIIVVTILL LLAFLFLMRK IQDCSQWNVL PTQLFLLSV LGFLGLAF AF IIELNQQTAP VRYFLFGVLF ALCFSCLLAH ASNLVKLV RG CVSFSWTTL CIAIGCSLLQ IIATEYVTL IMTRGMFVN MTPCQLNVDF VLLVYVLF MALTFVSKA TFCGPCENWK QHGRLIFTV LFSIIWVWV ISMLLRGNPQ FORQPQWDDP VVICALVTNA WVFLLYIVP ELCILYRSCR QECPLQGNAC PVTAYQHSFQ VENQELSRAR DSDGAEEDVA LTSYGTPIQP QTVDPTQECF IPQAKLSPQQ DAGGV	P	Homo sapiens
620	190744	G Protein- Coupled Receptor GPCR5C	NM_018653	cggcagggtg gggaaacctcc ctgaagggtg cccgtgtcac agcaccttg aagacagcca tiggccatgg ggaaccaacc agagccgtgc cgggagcca ggaaggccat ccacaagcc tgggtgatg gcttgggact gctctcttc ctgtccacg gggcttgggc ccaggggccat gtccacccg gctgcagoca aggcctaac cccgtgtact acaaccigtg tgaocgtct ggggcgtggg gcatcgtct ggaggccgtg gctggggcgg gcatgtcac cagttgtg ctacacatca tctgtgtggc cagctccccc ttgtgcagg acaccaagaa agggagccgt cggggagccc aggtattctt ccttctgggg accctggggc tctctgct cgtgttgc ttgtgttga agcccgact ctccactg gctctcggc gcttctct tgggtgtcgt ttgccaatct gcttcttg tctgggggt cagctttg cctcaact cctggccggc aagaaccacg gggcccgggg ctgggtgac ttacttgg ctctgtct gaccttgga gagggtcalca tcaatacaga gtggcgtgac atcaccttg ttggggcag tggcgagggc gggccctcagg gcaacagcag cgcaggcgtg gccgtgtg cccctgtg cgtcgccaac atggacttg tcatggcact catctacgtc atgtctgtc tcttgggtgc ctcttgggg gcttggcccg ccttgtgtg ccgtacaa cgttggcga agcatggggt cttgtgtc ctacacacg ccactcctt tgcataatgg gtgtgttga tctgtatga tacttaccg aacaagcagc acaacagtcc cacttgggat gacccacgc tggccalcgc cctgcgcgc aatgcttggg ccttctct ctctacgt atcccgagg tctccagg gtaccaagtc agccagagc aaagtaccca gggggacalg taccacacc ggggcgtggg ctatgagcc atctgaag agcagaaggg tcaagacalg ttctgttgaga acaaggcct ttccatggat gaggcgttg cagctaaagag ggcgtgtg tcaatagc ggtacaatgg gcatcgtgtg accagtgtg accagccac tgaatggcc ctgatgcaca agttccgtc cgaaggagct tactacatca tcttccacg gggccaccc aacaagagg tgaatggcag tccaactg accctgggg cgaagacat gactcggcc cagagccacc aggcggccac accgccaaa gacggcaaga acttccaggt cttaagaa ccttactgt gggacttga cagcgggtggc gaggagaggc gggcggatt ggggagggcc ctgaggacct gggccgggc aagggtact ctaggtctt cctcccttg gcaaggcagc aacatgtcc ccagatctgg aagggtctc ctctgcca gtgttgggt ggtgtcgtg ggtgtccca cccatctc agtgtgtg ggtcaggga gccaaccca gctctctgc aggtacct cggcgtgac actccagoca aatagtgtc tgggggtgtt ggttggcag cgcctagt tcttggaga ttctgcaac ctcaagagac ttccaggcg ctaggccig gactgtct cttgtgagg acaagggtg cctaataat acatttctg ttataaaa aaaaaaaa aaaa MGTPPEPLG ARMAIHKALV MCLGLPLF PGAWAQGHVP PGCSQGLNPL YYNLCDRSGA WGIVLEAVAG AGIVTFVLT ILVASLPFV QDTKKRSLG TQVFFLLGTL GLFCLVFACV VKPDFSTCAS RRFLFGLFA ICFSCLAAHV FALNFLARN HGPRGWVFT VALLTLVEV INTEWLIT LVRSGEGGP QGNSSAGWAV ASPCA VANMD FVMALYV ML LLLGAF LGAW PALCGRYKRW RKHG VFVLLT TATSAI WV WV MYTYGNK QHNSPTWDDP TLAIALAANA WAFVLFYVP EVSVQTKSP EQSYQGDMPY TRGVGYETIL KEQKGQSMFV ENKAFSMDPE VAAKRPVSPY SGYNGQLTS VYQPTMALM HKVPSEGAYD IILPRATANS QVMGSANSTL RAEDMYSQS HQAATPPKDG KNSQVFRNPY VWD	A	Homo sapiens
621	190744	G Protein- Coupled Receptor GPCR5C	NP_061123.2		P	Homo sapiens

622	190745	G Protein-Coupled Receptor LGR7	NM_021634		A	Homo sapiens
				atgacatcgtgttcgtctctcttciacatc ttaattttg gaaataattt ttctatcggg ggtggacacagg atgtcaagtg ctcccttggc tatttccctt gggggaacat cacaagatgc ttgcctcagc tctgcactg taacgggtgg gacgactcgg ggaatcaggc cgtatggagc aactgtggag acaacaatgg atgttccatg caatttgaca aataatttgc cagtttctac aaaatgactt cccaatctcc tttagggca gaaacacctg aatgtttgtt cggttcttgg ccagtgcaat gttttggcca aggtctggag ctgacitgg atgaaccaa ttacgagct gttacatgg ttcttcaa ttgactgca atgtcactc agtgggaactt aataagaag ctctctctg atgttcca gaaataatcat gattctcaga agctgtacct gcaaaaat aagatacat ccatctccat ctatgtttc agaggactga atagccttac taaactgtat ctacgtcata acagaataac ctctctgaag ccgggtgttt ttgaagatct tcacagacta gaalggctga taattgaaga taalcacct agtggaaatt cccaccacac attttatgga claaattct ttattctt agtctctgat aataacgtcc tcaccgttt acctgataaa cctctctgc aacacatgcc aagacttcat tggctggacc ttgaaggcaa ccatatccat aatttaaga atttgactt tatttctgc agtaatttaa ctgtttatg gatgaggaaa aacaaaata atcactttaa tgaataatct ttgcacctc tccagaact ggtgaattg gatttaggaa gtaataagat tgaatacti ccacctta tattcaggga cctgaaggag ctgtcacaat tgaattcttc ctataatoca atocagaaa ttcaagcaaa ccaatttgat tatcttga aactcaagtc tctcagoccta gaaggagattg aaatttcaaa latccaacaa aggaatttta gacctttat gaattctct cacatatatt ttaagaatt ccaatttctt ggttatgcac cacatgttcg cagctgtaaa ccaaacactg atggaaattc atctctagag aatctcttgg caagcattat tcagaagagta ttgtctggg ttgtatctgc agtacctgc ttggaaaca ttgttgcatt ttgatcga cctatataa ggtcttgaaga caagctgtat gccaatgcaa tcatttctct ctgtctggcc gactgtctaa ttgggaataa ttatctgg atcgggaggt ttgaacctaa gtttctggga gaatacaaa agcatggca gctgtggatg gaggatctc atgtcagct tggaggatct ttggccatc tgcacaga agtatcagtt ttactgttaa cattctgac atgggaaaaa tacatctga ttgtctatcc tttagatgt gtagagactg gaaatgcag aacaattaca gttctgattc tcaattgat tactgtttt atagtgtctt tcaatcatt gagaalaaag gaattttca aaactataa tggcaccat ggaatagct tcccttca ttcaagaat acagaagta ttggacca gattttica gttgcaatt ttcttgat taatttggcc gcaatttca tcatgttt ttctatgga agcaatttt atagtgtca tcaaaagtc ataacgcaa ctgaataacg gaalcaagtt aaaaagaaga tgatcttgc caaagttt ttctttag tatttaca tgcattatgc tggalacca ttuttagt gaaatttt ttactgtctc aggtagaat accaggtacc ataacctt ggttagtgat ttattctg cccaataca gttcttgaa cccaatttc tatctctga ccacaagacc atttaagaa atgattatc ggttttgta taactacaga caagaataat ctatggacag caaaggatcag aaacataat cctcatcatt catctgggtg gaaatgtgc cactggcagga gatgccacct gatgataatga agocggacct ttacatac cctgtgaaa tgcactgat ttctaatca acgagactca attctattc atga MTSGSVFFYI LIFGKYFSG GGQDVKCSLG YFPCGNITKC LPQLLHCNGV DDCGNQADED NCGDNNGWSM QFDKYFASY KMTSQYPFEA ETPECLVGSV PVQCLCQGLE LDCDETNLRA VPSVSSNVTA MSLQWNLRK LPDCKFKNYH DLQKLYLQNN KITSISYAF RGLNSLTCLY LSHNRITFLK PGVFEDLHRL EWLIIEDNHL SRISPTFYG LNSLILL VLM NNVLTRLDPK PLCQHMPLRH WLDLEGNHH NLRNLTFISC SNTLVLMRK NKNHNLNENT FAPLQKDEL DLGSNKIENL PPLIFKDLKE LSQNLNLYP IQIQANQFD YLVKLSLSL EGEISNIQQ RMFRPLMNL HIYKFKFYC GYAPHVRCK PNTDGISSLE NLLASIIQV FVWVVSATC FGNIFVICMR PYRSENKLY AMSIISLCCA DCLMGILFY IGGFDLKFRG EYNKHAQLWM ESTHCQLVGS LAILSTEVS LLLFLILEK YICIVYFFRC VRPGKCRIT VLLIWTGF IVAFIPLSNK EFFKNYYGTN GVCFLHSED TESIGAQIYS VAIFLGINLA AFHIVFSYG SMFYSVHQA ITATEIRNQV KKMILAKRF FFIVFTDALC WPIFVVKFL SLLQVEIPGT ITSWVVFIL PINSALNPIL YTLTRPFKE MIHFWYNYR QRKSMDSKGQ KTYAPSIWV EMWPLQEMPP ELMKPDIFTY PCMSLSISQS TRLNSYS		
623	190745	G Protein-Coupled Receptor LGR7	NP_067647.1		P	Homo sapiens

624	190748	GPCR Ls190748	AX147756		A	Homo sapiens	<p>gtctgggggt gggggatgct gggacaggggg tcaattgctt gaagcaagtg ctctatccc cctatgctctt gctgatctag ttgggctcc agatggggga ggaagaaggc acttgaaac ttcttgccc ttaccgtctt agccatcaa ctctgagctg gagatagta cgaatgaca ggaacttcc ctgggctct ctggggcaca attcctggcc gagaagaaga ggaaggaatga ggtgagcacc ttctcact claggccat ggtgtagag tgcagtogca cctcttgctg ccaataggca tagatgagt ggttgaagcag ggaattggcc acgccgagca gccacaggta cgttccagc actagtaga ggtgacatc ctggcaggcc acctgcaca tgcagatgat aaggaagggg gtcaggata ggaagaagt ccaataggca acagacacag tacgggaagc ttgaagtcg ctgggggtcc gttggggtcg ataactcca gccatggctc ctgcatgct calcttcca atctgctggc tgtgcattga ggaacttgg agcatgctgc agtagaagaa gacaaagggg agcatggctg ggaagaaggc aacgcagagag aggttcagca cgaatgaggg gtgaatatca gcaagaagc tgcacggccc ttgtaggca gtctgctgga acatggggat tccgagtggg aggaagccaa tgaagtaaga cactaacac agccccgcaa tgcaggccc ggccacgaac ccacataga tcttcaagta gccgaaggcc tgcgtgag caaggtacct gtcaagggtg atcagatga ccgtgaggac agaaggcagct gcggagggaag tgaacaatgc catccgagg ctggcagggg tcttctgtgt gggccagaa gggctggaga gctggctgt ggttagggca gtagtgcca caacaatca ggtgtcagcc acagccagat tcaaggtaga gcaaggagctg acaccatc tctgtggt caacagcagc acagccacag ccactaggt gtagtagca atgaltgagg agggccaggac agcaaggatc actcaaatg agaaagatga ttccatgtct cgaatggga ggaacttact taccaggga tg</p> <p>MESSFSFGVILAVLASLIJA TNLVAVAVL LIHKNDGVS LCFTLNLAVA DTLIGVAISG LLTDQLSPS RPTQKTLCSL RMAFVTSSAA ASVLTVMILT FDRLAIKQP FRYLKIMSGF VAGACIAGLW LVSYLIGFLP LGIPMFQTA YKGCQSFV FHPHFVLTLS CVGFPMALL VFYFCDMLK IASMSQQR KMEHAGAMAG GYRSPRTPSD FKALRTVSVL IGSFALSWTP FLITGIVQVA CQECHLYLV ERYLWLLVG NSLLNPLIYA YWQKEVRLQL YHMALGVKKV LTSFLFLSA RNCGP RPRES SSVCHVITSS SEFDG</p>
625	190748	GPCR Ls190748	CAC39548.1		P	Homo sapiens	<p>atggccaact ccacagggt gaagcctca gaagtcgag gctcgttggg gtagcttg gtagcttgctg tggagggtggg ggcactgctg ggaacaggcg cgtgtctggt cgtgtgtctg cgcagcccg gactgcgcga cggctctac ctggcgacac tgtgtctgt ggaactgctg gggccggct ccatatgcc gctggggctg ctggccggcac cggccggccgg gctggggccgc gtcggctgg gcccggcc atggccggcc gctcgttcc tctcggccg tctgtgccc gctgtgcagc tgggggtggc cgcactggc ctggcagct accgctcat cgtgcaccg ctggccag cctcgcgcag gctcgcggcc gccgctgctg ctgtctgt cccgctgctg gggccggccg ggaactgctg ggcgcctc cctgtctggc cggccggcc caccggccc tgcctctgt cgtgtctgg tctgtggg gggcctggg ootitccgg cgtctggg cctgtggg tgcgtggc ttgcgctgc cggccctct gactcgtc gcttccgg gcatctgt ggtggcggt cgcgttggcc cgtgtggc cgtgtggc cggcggcc gactcgtc ggaactctg gtagccggc ttccatcti ggcggctc gggccttia tggcttgcgc tgcctggcg ccgagcgog ctggcccgaa gcccgaagcg ctgtaccgt ggtgcctac tgggcttgc cggctaccc ctctgttgc ggtctgtgc agcgccctt gcgcttggca ctggccggc tctcggcg tgcactgct ggaactgtgc gggccctgcac tccgcaagcc tggcaccggc gggcactcti gcaatgctc cagaagccc cagaaggccc tggcgtggc cttctgagg ctccagaaca gaccccgag ttggcaggag ggcggagccc cgcataccag gggccacctg agatctct cctctg</p> <p>MANSTGLNAS EVAGSLGLIL AAVVEVGALL GNGALLVVVL RTPGLRDALY LAHLCVVDDL AAASIMPLGL LAAPPPLGR VRLGPAPCRA ARFLSALLP ACTLGVAAALG LARYRLIVHP LRPGSRPPV LVLTAVWAAA GLLGALSLLG PPPAPPPAPA RCSVLAGGLG PFRPLWALLA FALPALLLLG AYGIFVVAR</p>
626	190749	G Protein-Coupled Receptor GPR62	AF317653		A	Homo sapiens	
627	190749	G Protein-Coupled Receptor GPR62	AAK12638.1		P	Homo sapiens	

628	190774	Histamine H4 Receptor	NM_021624	<p>RAALRPPRPA RGSRLRSDSL DSRLSILPPL RPRLPGGKAA LAPALAVGQF AACWLPHYGCA CLAPARAARAE AEAAVTWVAY SAFAHPFLY GLLQRPVRLA LGRLSRRALP GPVRACTPQA WHPRALLQCL QRPPEGPAVG PSEAPEQTPE LAGGRSPAYQ GPPESSLS</p> <p>ggaaagactac acatittagg tatigiatia gaaacacalac tigticagaat tigtigtigtig gattaatig ctaattigac ctctitcalc attitgatig algccagata ctaatagcac aataattia tcaatagca ctctigtitac tttagcatit ttatigtct tagtictt tgtatataig ctaggaaatig ctitigticat tttagcttitt gtigtigtigaca aaacotitg acatcagaat agtattitt ttcttaact ggccatcti gacttcttgg ttgtigtigtat ctccatct ttgtacatc ctacacgtct gticagaatig gattitggaa aggaatctig tgtattitgg ctacatcig actatctitt atgtacagca tctgtatata acattigtct catcagctat gtatcatalacc tigtacitc aaatigtigtig tctatagaa ctacacatc ttgtigtigtig aggtattitga ctctigtatig gtccgtitgg gtigtigtct tctatigtia ttgtgtccaaatig attctatit cagagtictig gaaagtatgaa ggtatigtat gttgaacctig attittitgg gtaatgtata tctitgtccat cacatcatic ttggaatig tcatccagat calcttagic gcttatitca acatgaatat ttatigtgagc ctgtigtgagc gttatcatct cagtatgtgc caaagccatc ctgtgtactgac tigtigtict tccacatct gtgtgtacatc attcagaggt agtatctt caaagtgtatc tcttctgca tctgacagag ttctgtcatc ctitcatitca gtagagacaga gtagaagag tagtictalg ttitctcaa gaaccaagat gaaatagcaat acattigtct ocaaatitgg ttcttctcc caatcagatt ctgtigtct tcaocaaagg gaacatgtig aacigttag agccagagaa ttagccaaat cactgtgccat tctittaggg gttitgtigt ttgtgtggc tccatitct ctgttcaaa ttgtcttct attitattc tcaagcaacag gtccaaatc agttitgtat agaatitgca ttgtgttca gttgttcaat tctitgtica atctcttitt gttatccatig tigtcaagc gtttcaaaa ggttictig aaaaattitt gtaataaaa gcaacctitca ccatcaaac acagtgtgtc agtatcttct taaagacaat ttitcatct ctgtaaatt ttgtictcaat ctacactaaa ttgaatcaggt ctgtccctta tcttggctt ttatcttac caacagatct gcaattitgaa gttcaatgtia aattatcca gttgaataata gtcagtataat atgtatgtat aaatitig taaactitga gttataatag tctatitc tttagtcc tcaacttct ctgtcttitt agatctiaat ttatgtctga ttacaaaaat ccagttitgt ttitctta ttgtccatc alaaatagat cttaagtigaa ttitcttitt ttatittat cgtatatagaa actatccag ttgaaaaatc attcciaaa gcatgtcaata gtagaagagaa cctctgtgtc gtagactgtcc aactitgtic tgcagatgtg gttgtgtgtg taggtitga gttgtcaaga gcaaggtgaag gttcatgtgtc caggtgtgtc cctgtgtgtg tccagattitt alattctiaa tccagtaag gtagaagagag tagtgtgtgaa gtagaagagag cgtatgtactg cagtictcaa aggttctcag tgaatitatt ttgtgtgtcc ttgtgtgtc ttgtgtgtc ttgtgtgtc ttgtgtgtc ttgtgtgtc ttgtgtgtc tgaatitatt gttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca tgaatitatt gttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca aaatittat ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca aggttcaagag atcagagaa tctgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca cgtgtgtgtc ctgtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg cgtgtgtgtc ctgtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg cgtgtgtgtc ctgtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg caggtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg actacaggtg cgtgtgtcca caggtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg aaatittat ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca ttgtgtcca atcactgtca cctgtgtgtc ctgtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg caggtgtgtc ctgtgtgtc agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg aagacaggtgt agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg tgtgtgtgt agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg ttatgtcatt gtaggtgtg agttactgtg gtaggtgtgag caggtgtgtg gtaggtgtg gtaggtgtg gtaggtgtg gtaggtgtg</p>	A	Homo sapiens
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629	190774	Histamine H4 Receptor	NP_067637.2	<p>acatttiatt agtttggtta tgttttgc tttaaaaca ttitttttg agalgggggg cttgtctgt tggccacgca ggaagtgcagt ggcatgctct cagctcacig cagcccgac tgcctaggct ccagcaatct tctttagcta gcctccagag tagctgggac cgaggagact tggccacag cccactaaa aatttttaa atgttgct tcttgaagt gttcttgc tgtctttg acaaatte atttttca tagttaatt catctctcg gtaagatttt atgttggtt cttaaac ttgcagtc ttacacgtt tgggtattt calgttctt agaaacttta accctttaac ttaaacatt aaataacaag tcttttaagt acatgagtc ttagaagt acataatgt talacact talgccttac attaaagtc aataagaa alacatgtt aacattcaat aataattta aaataatgag aaataaact tcaataatgc aaaaaataaa aaaaaaaa</p> <p>MPDINSTNL SLSTRVILAF FMSLVAFALM LGNALVILAF VVDKNLRHRS P Homo sapiens</p> <p>SYFFLNLAIS DFEVGVISIP LYIPHTLFEW DFGKEICVFW LTDDYLLCTA SVYNIVLISY</p> <p>DRYLSVSNVAV SYRTQHTGVL KIVTLMVAWV VLAFLVNGPM LVSESWKDE</p> <p>GSECEPGFFS EWWYLAITSF LEFVIPVLV AYFNMMNYWS LWKRDHLSRC</p> <p>QSHPGLTAVS SNICGHSFRG RLSSRRSLA STEVPASFHS ERQRRKSSLM</p> <p>FSSRTKMNSN TIASKMGFS QSDSVALHQR EHVELLRARR LAKSLAILLG</p> <p>VFAVCWAPYS LFTIVLSFYS SATGPKSVWY RIAFWLQWFN SFVNPLLYPL</p> <p>CHKRFQKAFI KIFCIKKQPL PSQHSRSVSS</p>
630	190823	Formyl Peptide Receptor 1 (FPR1)	NM_002029	<p>ccagagacta gaactacoca gagcaagacc acagctggg aacagtcacg gagcagacaa gagggagaca aattctctc tcccacgaa catcttggg agggacacctg ctgtatctgc tggctatctc ttcttgata tcatcacta tctgttatt gcagtcacct. ttgtctcgg ggtctggg acgggctg tgaatgggtt ggttggtt cggatgacac acacagtcac caccatcagt tacctgaacc tggccggg tgaatctgt ttacatcca ctttgccat cttcagtc aggaagcca tgggagagaca ttggccttic ggctggttc tgtgcaaat cgttttacc atagtgagaca tcaactgtt cggaaagtc ttctgacg cctcatigc tctggaccg tgtgttgcg tcttgcaccc agtctggacc cagaaccacc gcaccgtgag cctggccaag aagggtgata ttggccctg gggtgaggt cgtctctca cattgccagt tatctgtt gtagctacag taccctgtaa aacgggggaca gtagccigca ctttaact ttggccctgg accaagacc cttaaagaga galaaatgt gccgttgcca tgttgcaggt gagaggcaic atccgggtca tcatlggtt cagcgaccc atgtccatcg ttgtgtcag ttatgggctt atggccacca agatccacca gcaaggcttg attaagcca gtcgtccctt accggctctc tcttttgc cagcagcct ttctctgc tggccccc atcaggtgtt ggccctata gccacagica gaatccgiga gttatigcaa ggcatgaca agaaatgg taitgcagtg gatgacaa gfgccctggc cttctcaac agctgcctca acccatgt ctatgtctc atgggccagg acttccggga gaggtgac caegccctc ccgocagct ggagaggcc ctgaccgagg actcaacca aaccagtgac acagtlaca atttactt acccttgc gaggtggagt tacaaggcaa gtagggagg agctggggga cacttgcag ctccagtc cagcttgc taccctgag ttaggctgag cacaggcatt tctgtctat ttaggatta cccactatc agaaaaaaa aaaaagcct tigtgtccc tgaattgggg agaataaaca gatatggtt</p> <p>METNSSLPNTN ISGGTPAVSA GYLFLDIITY LVFAVTFVLG VLGNGLVWV P Homo sapiens</p> <p>AGFRMTHVT TSYLNLAVA DFCFTSTLPF FMVRKAMGGH WPFGWFLCKF</p> <p>VFTIVDINLF GSVFLIALIA LDRVCVCLHP VWTQNHRTVS LAKKVIIGPW</p> <p>VMALLTLPV IIRVTVPGK TGTVACTNF SPWINDPKER INVAAMLTV</p> <p>RGIIRFIIGF SAPMSIVAVS YGLIAKHK QGLIKSSRPL RVLSEFAAAF FLCWSPYQVV</p> <p>ALIAVTRIRE LLQGMVKEIG IAVDVTSALA FNSCLNPMI YVFMGQDFRE</p> <p>RLIHLPASL ERALTEDSTQ TSDTATNSTL PSAEVELQAK</p> <p>atggaaacca acttctcat tctctgaat gaactgagg aggtgtccc tgaagctgt ggccacacg ttcttgat ctctcatig A Homo sapiens</p> <p>ctagtccag gagtccactt tgtctcgsg gtcctgggca atgggctgt gatctgggtg gctggatcc ggalgacacg</p>
631	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	
632	190824	Formyl Peptide Receptor-like 2	NM_002030	

(FPRL2)

633 190824 Formyl Peptide NP_002021.2 P Homo sapiens
 Receptor-like 2 (FPRL2)

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 ccttgactga ggtccctgac tcagccocaga ccagcaaac acacacact tctgttcac ctcttgaggga gacggagtta
 caagcaatgt ga
 METNFSIPLN ETEEVLPEPA GHTVLWFSL LVHGVTFVFG VLGNGLVIVV
 AGFRMTRTVN TICVLNLA DFSAILPF RMVSVAMREK WPFASFCLKL
 VHVMIDNLF VSVYLITIA LDRICVLHP AWAQNHRMS LAKRVMITGLW
 IFTIVLTPN FIFWTISIT NGDTCIFNF AFWGDTAVER LNVFITMAKV FLILHFUGF
 TVPMSIITVC YGIIAAKIHNR NHMKSSRPL RVFAAVVASF FICWFPYELI GLIMAVWLKE
 MLLNGK YKII LVLINPTSSL AFFNSCLNPI LYVFMGRNFQ ERLIRSLPTS LERALTTEVPD
 SAQTSNTHIT SASPEEETEL QAM

634 190948 EMR2 Hormone NM_013447 A Homo sapiens
 Receptor

cggagaggg acagccctgt ccactactt cttcccttg cgtctctgc cggcagctca gctggaaacca tgggaggccg
 cgtcttctt gctctcttg catctgtt ctggctgact ctgocggggag ctgaaoacca ggaactccagg ggcctgtgccc
 ggtgtgtccc tcaggactcc tegtgtgtca atgccaccg ctgtctctg aatccagggt tcaactctt ttcttgagtc
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 agacacacca gggctgtgtg caggaggggt ccccatctt gctctcagat gtagtcttg cctttctgag caacaagac
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 gtcatcctt acatgggggt gtaggtctct ctgtgtgccc tctctctact ggccttact ttctctgt gtaagacctt ccaagaacc

635	190948	EMR2 Hormone Receptor	NP_038475.1	<p>agcacctcac tgcattgca gctctgctc tgcctctcc tggccaccct cctctctc ttggcaattg atcaaacggg acaaagggtg ctgtgtcca tcatgcccgg taccctgac tatcttacc tggccaccct caccctggatg ctgctggagg ccctgtacct cttctact gcacggaacc tgcagggtg caactactca agcatcaaca gattcatgaa gtagctcatg ttccctggg gctacggagt ccagctgtg acagtgcca ttctggcgc ctccagcct cacccttgg gaaaccttc ccgtctgctg ctcaaccag aaaaaggatt tatatgggc ttcttggag ctgtctggc catctctct gtaatttag ttctttct gggtgactct tggatttga aaaacagact cctctctc aatagtgaag tgtaccct cgggaacaca aggaftctgg cattaaagc gacagctcag ctgtcatcc tggctgac ggtgtctg ggtcatctg aggtgggtcc ggtggccggg gtcatggct acctctcac calcatcaac agcctgacgg gttctcat cttctgtgtg tactgctcc tcatgocagca ggccggggag caatatggga aatgttcaa agggatcagg aaattgaaa ctgagtctga gtagcacaca ctctocagca gtgtaaggc tgcacctcc aaocagca cggtaacta gaaaatct ctgataaga tctctct ttgocgggtgg aaaatctgaa caatcttga gccatctaga ggggaagaa aagactttgt tctgtgt tcaagaat caccatgta gcaatlgaa ggatgtatg gaaggctg ttggcatca attctgcag aaacgggaaa tcttccatg ccgtcatgt gctatcaaa ctctagcal atggacggcc agctgtggcc calacttgg tcatctgaa gcaaatat tatgaagctg tagaacgtta agactcttt cacagcctct cttctaca aagactctc caaatctaa aatgaagcag gaaaacagc ctgaaggagc ttcataccg acaacatctg aaaggactag aatgtcaca ccagatctg gattcttaa tttttgt ttgtttgt tgttcttag tttaagggt ttgattatt agtcatgta aaaaataga ttactcac atagatcag agagacacgg ctctgctt catggact ttgggggaaa atgaagggtg tcttgact agatgtact cagaagcga aattctaga aatcaggtt ctactgtag gcaatigaag tataaatat ttataaca ctgtctt tcatctac</p>	P	Homo sapiens
636	190955	Leukotriene B4 Receptor BLT1	NM_000752	<p>MGRVFLVFL AFCVWLTLPG AETQDSRGCA RWCPODSSCV NATACRNP FSSFSEIIT PMETCDDINE CATLSKVS CG KFSDCWNTG SYDVCVCSGY EPVSGAKTFK NESENTQDV DECOQNRLC KSYGTCVNTL GSYTCQCLPG FKLKPEDPKL CTDVNECTSG QNPCHSSTHC LNNVGSYQCR CRPGWQPIPG SPNGPNNTVC EDVDECSGQ HQCDSTVCF NTVGSYSRCR RPKWKPRHGI PNNQKDTVCE DMTFTWTTP PGVHSQTLR FFDKVDLGR DYKPLANN IQSILQALDE LLEAPGDLET LRLQQHCVA SHLLDGLDVL LRLSKNLSN GLLNFSYPAG TELSLEVQKQ VDRSVTLRQN QAVMQLDWNQ AQKSGDPGPGS VVGLVSIPIGM GKLLAEAPLV LEPEKQMLLH ETHQGLLDG SPILLSDVIS AFLSNNDTQN LSSPVTFHS HRSVIPRQKV LCVFWEHGQN CGGHWATTGC STIGTRDTST ICRTHLSF AVLMAHYDVQ EEDPVLTVIT YMGLSVSLLC LLLAALTFLL CKAIQNTSTS LHLQLSLCLF LAHLLFLVAI DQTHGKVLCS IIAGTLHYLY LATFTWMLE ALYLFTARN LTVVNYSSIN RFMKKLMFPV GYGPAVTVA ISAA SRPHLY GTPSRCWLQP EKGFHWGFLG PVCAIFS VNL VLFLVTLWIL KNRLSSLNSE VSTLRNTRML AFKATAQLFI LGCTWCLGIL QVGPAAARVMA YLFTIINSLQ GVFI FLYCYL LSQQVREQYG KWSKGIRKLLK TESEMH TLSS SAKADTSKPS TVN</p> <p>gccattct caccctgt ggcgcagga agccctct gaactctgac ttacttct gctgcggtt ctgcccatt ttctatc ctctgacagc tgcggagctca tctctgctt ggtttctc caagcagaac aagtgggggc ttggaaagg ttaaggagc tcatggcca ccattact tgcatttt ctgagaagt gtagtgaa agggaaagc gaaggcccat ggtcagtg aagggaaggc tttaggtt ctttttt tttagaat gtagctctg tctgctc aggttgagt gcatgtgtc gattcagct cactgagcc tccactct gggttccat gattctctg cctcagctc ccaagttagt gacatcag gcaatgcca</p>	A	Homo sapiens

ctacaccag ctaacttttg taattttagt agagagacgggg ttacacatg ttggccaggc tggctcaca ctgctaacat caagtgatct
 gctccctca gctcccaaa gttctgggat taccggatg aaccacaca acctgccagg aattttagt tttagcttt tgcaggagac
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 ctgaagctg aa

637	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	MNTSSAAPP SLGVEFISLL AIILLSVALA VGLPGNSFVV WSLKRMQKR SVTALMVLNL ALADLAVLLT APFLHFLAQ GTWSFGLAGC RLCHYVCGVS MYASVLLITA MSLDRSLAVA RPFVSQKLRT KAMARRVLG IWVLSFLAT PVLAYRTVVP WKTNMSLCFP RYPSEGHRAF HLIFEAVTGF LLPFLAVVAS YSDIGRRLLQA RFRRSRRRTG RLVLILTF AAFWLPYHVV NLAAGRALA GQAAGLGLVG KRLSLARNVL IALAFSSSV NPVLYACAGG GLLSAGVGF VAKLLEGTGS EASSTRRGGS LGQTARSGPA ALEPGSESL TASSPLKLINE LN atgatgccct ttgcacaaa tataatatt atttctgtg tgaaaaaa ctagtcaaat gatgtccgtg ctccctgta cagttaag	P	Homo sapiens
638	191039	Trace Amine	AF380185		A	Homo

sapiens

Receptor 1 (TA1)

639 191039 Trace Amine AAK71236.1
Receptor 1 (TA1)

Homo sapiens

P

gggtcatala ttctgaccac actcgttggc aatcgtatag ttatgtttc latatcacac ticaaacacac tttatcccc aacaaattgg
cicattcatt ccattggccac tggtagactt ctctgggggt gtcgtggcat ggcttaccag atgggttagat ctgctgagca cgttgggat
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MMPFCHNIIN ISCVKNNWSN DVRASLYSLM VLJIL.TTL.VG NLIVIVSISH
FKQLHTPTNW LHSMATVDF LLGCLVMPYS MVRSAEHCWY FGEVFCIKHT
STDMLSSAS IFHLSFISID RYAVCDPLR YKAKMNLVI CVMFISWSV PAVFAFGMIF
LELNFKGAE IYKHHVHCRG GCSVFFSKIS GVLTFMTSFS IPGSIMLCVY
YRIYIAKEQ ARLISDANQK LQIGLEMKNG ISQSKERKAV KTLGIVMGVF
LICWCPFFIC TVMDPFLHYI IPPTLNDVLI WFGYLNSTFN PMVYAFFYPW
FRKALKMMLF GKIFQKDSR CKLLELS

640 191132 G Protein- NM_022049
Coupled Receptor
88 (GPR88)

Homo sapiens

A

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tcccgggt cgtgtgtc cgtgtgtc cgtgtgtc cgtgtgtc cgtgtgtc cgtgtgtc cgtgtgtc cgtgtgtc
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641	191132	G Protein- Coupled Receptor 88 (GPR88)	NP_071332.1	MTNSSSTSTS STTGGSSLLL CEEESWAGR RIVPSLLYSYG LAIGGTLANG MVYLVSSFR KLQTSNFI VNGCAADLSV CALWMPQEA V LGLLPTGSAE PPADWDGAGG SYRLLRGGLL GLGLTVSLLS HCLVALNRYL LITRAPATYQ ALYQRRHTAG MLALSVALAL GLVLLPPWA PRGGAAPPRI HYPALLAAAL LLAQTALLH CYLGIVRRVR VSVKRVSVLN FHLHQHLP GC AAAAAAFP GA QHAPGPGGAA HPAQAQPLPP ALHPRRAQRR LSGLSVLLC CVFLATQPL VVWSLASGFS LPVPWGVHAA SWLLCCALSA LNPLLYTWRN EEFRRSVRSV LPGVGDAAAA AVAATAVP AV SQAQLGTRAA GQHW gggtgcaata actactact actggalata ttaaaacct ccagaatac cagtalacag gtaaccaaca agaaalgcaa ggcgtgaca acctcacct tgcgcctggg aacacacgt tgcgcaccag agatacaaa atcacccagg tcccttccc actgctctac actgctctgt ttgtgtgg actataca aatggcctgg cgalgagagt ttcttcaa atccggagta aatcaaacit tatttttt ctlaagaa caagcatttc tgcattctc algattctga ctuiccat caaaattct aatggagca aactggggac agggaccact agzaactttg tgtgtcaagt taccctgc atattttt tcaacaat taltcagtt tcatctcgg gactigatac tatcgatgc taccagaaga ccacaggcc attiaaaca tcaacocca aaaattctt ggggggtaag attctctg tgcattcgg ggcattcag ttctactct ctgtgctaa calgttctg accacaggc agccagaga caagaatgt agaaatgt ctctctaa atcagaatgc ggtctagt ggcaltgaat agtaaatlac atctgtcaag tcaatttgc gattaattc ttaattgta tgaatgta tacactcatt acaaaagaac tgaacggtc atacgtaaga acpagaagggtg taggtaaagt cccacaggaaa aaggtgaaacg tcaaaattt cattatcatt gctgtatct ttattgtt tgtctctt catttgccc gaaatctta caccctgagc caaacccggg algctttga ctgcactgt gzaaaatc tgrtctagt gzaagagagc actgttgg ttactctt aatgcalgc ctgagccgt tcatctatt ttccctgc aagctctca gzaatgtc ctgaatggc ccaattcgc aacatctgc tccagggaca	P	Homo sapiens
642	191168	P2Y12 Platelet ADP Receptor	NM_022788	gggtgcaata actactact actggalata ttaaaacct ccagaatac cagtalacag gtaaccaaca agaaalgcaa ggcgtgaca acctcacct tgcgcctggg aacacacgt tgcgcaccag agatacaaa atcacccagg tcccttccc actgctctac actgctctgt ttgtgtgg actataca aatggcctgg cgalgagagt ttcttcaa atccggagta aatcaaacit tatttttt ctlaagaa caagcatttc tgcattctc algattctga ctuiccat caaaattct aatggagca aactggggac agggaccact agzaactttg tgtgtcaagt taccctgc atattttt tcaacaat taltcagtt tcatctcgg gactigatac tatcgatgc taccagaaga ccacaggcc attiaaaca tcaacocca aaaattctt ggggggtaag attctctg tgcattcgg ggcattcag ttctactct ctgtgctaa calgttctg accacaggc agccagaga caagaatgt agaaatgt ctctctaa atcagaatgc ggtctagt ggcaltgaat agtaaatlac atctgtcaag tcaatttgc gattaattc ttaattgta tgaatgta tacactcatt acaaaagaac tgaacggtc atacgtaaga acpagaagggtg taggtaaagt cccacaggaaa aaggtgaaacg tcaaaattt cattatcatt gctgtatct ttattgtt tgtctctt catttgccc gaaatctta caccctgagc caaacccggg algctttga ctgcactgt gzaaaatc tgrtctagt gzaagagagc actgttgg ttactctt aatgcalgc ctgagccgt tcatctatt ttccctgc aagctctca gzaatgtc ctgaatggc ccaattcgc aacatctgc tccagggaca	A	Homo sapiens

Homo
sapiens

P

ataggaaaa agaacaggat ggtggtagc caaatgaaga gactccatg taaacaatt aactaaggaa atattcaat
ctctttgt tcaagactg ttaagcaaa gcgtaagta aaaaatataa ctagaagaaga agcaactaag ttaataataa tgaactataa
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tattagcagc aaaaacaagc ac

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FQIRSKSNFI IFLKNTVISD LLMILTFPFK ILSDAKLGTG PLRTFVCQVT SVIFYFTMYI
SISFLGLITI DRYQKTRPF KTSNPKNLLG AKILSVVIWA FMFLSLPNM ILTNRQPRDK
NVKKCSFLKS EFGLVWHEIV NYICQVIFWI NFLIVIVCYT LITKELYRSY
VRTRGVGKVP RKKNVVKVFI IIAVFFICFV PFHFARIPYT LSQTRDVFDC
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SLSQDNRKKE QDGGDPNEET PM

643 191168 P2Y12 Platelet
ADP Receptor NP_073625.1Homo
sapiens

A

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VAMVFYISKI FLVAKHQARK IESTASQAQS SSESYKERV A KRERKAAKTL
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644 191193 Trace Amine
Receptor 3 (TA3) AF380189Homo
sapiens

P

645 191193 Trace Amine
Receptor 3 (TA3) AAK71240.1Homo
sapiens

A

646 191196 G Protein-
Coupled Receptor
GPR80 AF411109

647	191196	G Protein-Coupled Receptor GPR80	CAC51133.1	<p>taacctgttta ctatattgttg tggcagcga caactttcag caggctgtct gctcaacagt gagatgcaaa gtaagcggga acctgagca agcaagaata attagtact caaacaacc ttga MNEPLDYLAN ASDFPDYAAA FGNCTDENIP LKMHYLPVY GIIFLVGFPG NAVVISYIF KMRPWKSSSTI IMLNLACTIDL LYLTSPLFI HYYASGENWI FGDFMCKFIR FSHFNLYSS ILFLTCSIF RYCVIHPMS CFSHKTRCA VVACAVVWII SLVAVIPMTF LITSTNRITNR SACDLTSSD ELNTIKWYNL ILTATTFCLP LVIVTLCYTT IIHTLTHGLQ TDSCLKQKAR RLTIILLAF YVCFLPFIL RVIRIESRL SISCSENQI HEAYVSGPL AALNTFGNLL LYVVVSDNFQ QAVCSTVRCK VSGNLEQAKK ISYNNP tccctggccc taataaatg actaatc tcaagctc tgaattc tctgtaaaa caggggcgt aattaccata taacaggcig gtaagaaaa tcaagtaaca tgcagcaggt gctcaagct tgttttgt tccaggggca ccaagtggagg ttcttgagc atggatccaa ccacccggc cgggggaaca gaaagiataca cagigaaagg aaligaccaaa gcccttcic tgcitigigg caaggagacc ctgatccgg tcttctgat ccttticat gccctggcgg ggcctggagg aaacgggttt gtcctcggc tccctgggct cggcatgcgc aggaaagcct tctctgcta cgtctcagc cggccgggg cgcacttct cttctctgc ttccagatta taaattgctt gctgtaoctc agttaactit tctgttccat tccatcaat ttccctagt tcttccacc tctgatacc tctgctacc ttgcaggcct gagcaltgctg agcaccgtca gcaaccagcg ctcctgtcc gtcctgtggc ccatctggta tgcctggcgc cggccccagac acctgtcagc ggctgtgtgt gtcctgctt gggccctgtc cctactgtc agcaltgigg aagggaagt cgtggcttc ttatttagc atgggtgac tgggtgtgt cagacattg attatcac tgcagcgtgg cgtatttt taltcaltg tctctgtgg tccatgtcgg cccctgtgt caggatctc tgggttcca ggggtctgc actgaccagg cgtactcga ccatctgt caccatgtc ggttctcc tctgggctt gcccttggc attcaggtt tctaatatt atggatctg aaggatctg atgtctatt tctcatatt catcagtt cagttgctt gtcactctt aacagcgtg ccaacccat cattactt tctggtggc ctttaggaa gcaagtggcg ctcagcagc cgtactcaa gctggctc cagaggctc tgcaggacat tgcgtagggt gatacagtg aaggaltgtt ccgtcaggcg acccggaga tgcagagaag cagctgtgtg tagaagatga cagccctac ttccataga tatatgtggc ttgagaggc aacttggcc cgtctgtt gattgtga acttctcag tcttgattt aaaaagatga agagagctt tggaggtt aagttagaca MDPTTPAWGT ESTTVNGNDQ ALLLLCGKET LIPVFLIFI ALVGLVGNF VLWLLGFRMR RNAFSVYVLS LAGADFLFC FQINCLVYL SNFFCSISIN FPSFTTVMT CAYLAGLSML STVSTERCLS VLWPIWYRCR RPRHLSAVVC VLLWALSLL SILEGKFCGF LFSGDGSGWC QTDFDTTAAW LIFLFMVLCG SSLALLVRIL CGSRGLPLTR LYLTIILLTVL VFLLCGLPFG IQWFLILWV KDSDVLFCHI HPVSVVLSL NSSANPIYF FVGSFRKQWR LQQPILKLAL QRALQDIAEV DHSEGCFRQG IPMSRSSLV</p>	P	Homo sapiens
648	191218	MrgX2 G Protein-Coupled Receptor	AY042214	<p>tcataactt gacatttt ttcaggcaaa agtttagat acacttggg cattttccct gcatattgtt gcaaatgctt gtcctgaag atcttggct ttctggcagg tgcagactt gccactagag cttgggattgg tcatgtgac atggcgctc atggagacca gfgaagcagg actcaggcca atgctgtca cactatggga agataacig tagatcatr tgaagaaagg agacttgg ttatctct gcttaacaat aataacatag catttgggga tgaatgtca atacaggat ccatagtag alattaat gacaalaic tccacagctg gtacatatt gccaaatgig gtagcataga tagggatga tgaiccaa gctatgaat aatgagcat gccaaatga atgaattgg cttcattga attctcat tttccttga aagcaaatat gaagcaaat aagggccagg tggcaatga gccacgcatg gtgccaaatg caagtatga tcccttca cactccaga tgaatgactt gggcaaggag acattacat ciacagtagg tgcctgaaag attagccaga gttgcaaat gacaacctgg atggcgctg agtgaagat aataaggatc ggtctataga ggcacttcag aaatttctg aatttggat caaagctgaa ggctagcaaa attttcagag acttgcataa aatgcaggag atgcaaaag taaagctcac tcaaacatt gtcctcgg tttaactgt gaagtctgt ggttctccaa tgaanaagct cgtgctggca</p>	A	Homo sapiens
649	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1		P	Homo sapiens
650	191222	G Protein-Coupled Receptor Ls191222	LG94359		A	Homo sapiens

651	191222	G Protein- Coupled Receptor Ls191222	ENSP00000199 719	aaattgagga aatgacagag aaggatcaca tagcagacac ttaatccccc ggaatattc acaacaggig tgitcaggtt tcttgaaat ataatgcaa caaccagaac aaatatgatt ccagtaggg agagaatcag gagtaggatg gocaaggagt cattcaggt gagatatcc acttctt ccaagcacat agtgcctcta acagggggcc agtgaattt gttgtgcat aaaggcagt gaggcatatc t	P	Homo sapiens
652	193511	EGF-Like Module- Containing Mucin-Like Receptor EMR3	NM_032571	QTLAMIHSIE MINNSTLLPG VKLGYEYD TCTEVTAMAA TLRLSKFNC SRETVEFKCD YSSYMPRVKA VIGSGYSEIT MAVSRMLNLQ LMPQVGYEST AEILSDKIRF PSFLRTVPSD FHQKAMAH L IQKSGWNWIG IITDDDDYGR LALNTFIQA EANNVCI AFK EVLPAFLSDN TIEVRINRTL KKILEAQVN VIVFLRQFH VFDLFNK AIE MNINKMWIAS DNWSTATKIT TIPNVKKIGK VVGFAFRNGN ISSFHSFLQN LHLLPSDSHK LLHEYAMHLS ACAYVKD TDL RLHISQLAV FALGYAIRDL COARDCQNPN AFQWELLGV LKNVTFIDGW NSFHDAHGD LNTGYDVVLW KEINGHMTVT KMAEYDLQND VFIPDQETK NEFRNLKQIQ SKCSKECSPG QMKKTTRSQH ICCYECQNC P ENHYTNQ TDM PHCLLCNNKT HWAPVRSTMC FEKEVEYLNW NDSLAILLI LSLGIFVL VVGIFTRNL NTPVVKSSGG LRVCYVILLC HFLNFASTSF FIGEPODFTC KTRQTMFGVS FTLCISILT KILLAFS FDPKLQKFLK CLYRPILJIF TCTGIQVVIC TLWLFAAPT VEVNVS LPRV ILECEEGSI LAFGTM LGYI AILAFICFIF AFKGGKYENYN EAKFITFGML IYFIAWITFI PIYATTFGKY VPAVEIIVIL ISNYGILYCT FIPKCYVIC KQINTKSAF LKMIYSYSSH SVSSI tttttgagc taggaaagt ggttgctta cggcagcagta gagagcttcc agggctgggt gggcggggat acccgtaacca cagaatagca gggaccattg cttctcag gctctgctt tctgtgag cttcttgag cgtgagctca gaaacacaa acttctgtg ctaagtgccc cccaatgct tctgtgctca ataacatca ctcacatgc aacatggat atactctgg atctggggcag aaacttca cattccctt ggagacatgt aacgacatta atgaatgac accacccat agtgaatatt gttgatttaa cgtgtgtgt tacaatgctg aagggaagtt ctactgtcaa tgtgtccag gatataagct gcatctggg aatgaacaaat tcaataatc caatgagaac accgtgcagg acacacctc ctcaagaca accgaggggca ggaagagct gcaaaagatt ttggatcact tctaccaat cagacttat ggagacacaga agggagacaa gaaatctcat ccacagctac cactatttc cgggagtggt aatcgaaaagt tclagaaact gcttgaaag atccagaaca aaagtctcg aaaaatccaa acgatagtgt agclattgaa actcaagcga ttacagacaa tggctcga gaaagaaaga cattcaacti gaagctocaa atgaactcaa tggacatcog ttgcagtgac atcatcagg gagacacaca aggtccaggt gccattgct ttatctcata ttcttctt ggaaacatca taatgcaac ttttttgaa gagatgggata agaaagatca agtgaatctg aactctcagg ttgtgagtg cttgtattgga ccaaaaggga acgtgtctt ctccaagtct gtagcgtctg cttccagca cgtgaagatg accccagta ccaaaaagggt cttctgtgic tactgggaaga gcacaggggca gggcagccag tgggtccagg atggctgctt cctgtgacac ggaacacaga gtcacacat gttgaattgc agtcacctt ccagcttgc tgtctcag gctctgacac ggcaggggga ggaatcccggt ctagctgtca tcaactagt ggggcctgagc gttctctgc tgtgtctt cctggcggcc ctactttt tctgtgttaa agccatccag aacaccagca cctcactgca tctgcagctc tctgtctgoc ttctctggc ccaactctc ttctctggg ggaatgacg aactgaacc aagggtgctgt gtctcatcat cggcgggtgt ttgcattatc tcaactgac tcaactggc cgtctcacc tggatgctg tggagggtgt gcaactctc ctacagcac ggaaactgac agtgggtaac tactcaagca tcaatagact calgaagtggt aicatgtcc cagtcgggcta tggcgttcc gctgtgactg tggccattt gcagcctcc tggcctcacc ttatggaaac tgcgtgacga tgcgtgctcc acctgggacca gggtattcag tgggtttcc ttggccaggt cgtgtccatt ttctgtcga attagattt gttattctg gtttttga ttttgaag aaaacttcc tccctcaata gtagagtgic aacatccag aacacagga tgcgtgctt caaagcaaca gctcagctct tcatctgggg ctgcacatgg tgtctgggct tgcacaggt ggggtccaggt gcccagggtca tggcctactt ctacacalc	A	Homo sapiens

Homo
sapiens

P

NP_115960.1

EGF-Like
Module-
Containing
Mucin-Like
Receptor EMR3

653

193511

atcaacagcc tccaaggctt ctatctctc ttggcttact gctctctcag ccagcaggct cagaacaat atcaaaagt
 gtttagagag atcgtaaat caaatctga gtcgagaca tacacatt ccagtagat gggtctcgac tcaaaaccca
 gtgaggga tgtttcca ggacaagtga agagaaaata taaactag ataatcaac tccatctga aaatcatatc catgcatc
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 ctgttttc tccacaatag gctcacaac aatgigtgt aattgatt tctctcaaa aaaaaa
 MQGPLLLPGL CFLLSLFGAV TQTKTSCAK CPPNASCVNN THCTCNHGYT
 SGSGQLFTF PLETNDINE CTPPSVYCG FNAVYNVEG SFYCQCVPGY
 RLHSGNEQFS NSNENTCQDT TSSKITEGRK ELQKIVDKFE SLLTNQTLWR
 TEGRQEISST ATTILRDVES KVLETALQDP EQKVLKQND SVAJETQAIT DNCSEERKTF
 NLNVQMNSMD IRCSDIQGD TQGPSAIAFI SYSSLGNIIN ATFFEEMDKK
 DQVYLSQVV SAAIGPKRNV SLKSVILTF QHVKMTPTSK KVFVYWKST
 GQGSQWSRDG CFLIHVNKSH TMCNCSHLSS FAVLMALTSQ EEDPVLTVIT
 YVGLSVSLC LLLAALTFLL CKAJQNTSTS LHLQSLCLF LAHLLFLVGI
 DRTEPKVLCS IIAGALHYLY LAFTWMLLE GVHFLTARN LTVVNYSSIN
 RLMKWIMFPV GYGVPATVA ISAAWPHLY GTADRCWLHL DQGFMSWFLG
 PVCAIFSANL VLFILVFIL KRKLSLNSV VSTQNTTML AFKATAQLFI
 LGCTWCLGLL QVGPAQVMA YLFTIINSLQ GFFILVYCL LSQQVQKQYQ
 KWFEIVKSK SESETYTLSS KMGPDSPSE GDVFPQVKR KY
 KHAYICLAI WAYASFWTM PLVGLGDYVP EPFGTSCTLD WWLAQASVGG
 QVFILNILFF CLLLPTAVIV FSYVKIIAKV KSSKEVAHF DSRHSSHVL EMKLTKVAML
 ICAGFLIAWI PYAVSVWSA FGRPDSIPQ LSVPTLLAK SAAMYNPYIY
 QVIDYKFACC QTGGLKATKK KSLGFRLHT VTTVRKSSAV LEIHVEV
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 cagcaccag caggcgagg acagctcttg catcagttc agcaccggc gtagctcggga cagctccgga gccggcgccc
 aagcgcalgc gctccgggg tctctccg tggcgctcc tccggcgcg ccggggcg cgttcccggg gactccggcg
 ccgtctgaa gccaggaaa taactcggc gaaccgggg cgttcttgc ggcccgcaaa ccggcaccgg cagtttccg
 agtacaacia ccagagcgct gtggcgagga atgagcgagc agggcaccgg gttgtacgg tgggtgtca ggacccggac
 gccggcgagg ccggggcgct agtctactc gttggcgagc tcaatgaacg ccgtctgct gggtgttca gcatcgacc

Homo
sapiens

P

CAC21687.1

G Protein-
Coupled Receptor
dJ402H5.1

654

193516

Homo
sapiens

A

NM_001407

Cadherin EGF
LAG Seven-Pass
G-Type Receptor
3 (CELSR3)

655

193524

Homo sapiens

P

gcaaggag cagaacaag ggaattcaag accagaatg taggtggcac tgcctctat gttacagga tctccgtgg
ccctaggcac ctggctgca ggaagtact ccgttccact cctctttat tccctaaaa agggaaaaat gactgtiac
accctgtca caaaacttt actttgtc tttgtctgc tgcacagaac tgaagactt aaaaatttt tactgtttac aagtcagat
tcaaaaaatg ttttacttt gtttacaact caaaacttg agttttac tttgttaca tttttctt tttttccaag
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tctgtttgg gaataaact ctalagaaa caaaa
MMARRPPWRG LGERSTPILL LLLSLFPLS QEELGGGGHQ GWDPLAATT
GPAHIGGGA LALCPSSGV REDGGPGLGV REPfVGLRG RRQSARNSRG
PPEQNEELG IEHGVQPLGS RERETGQPG SVLYWRPEVS SCGRTGPLQR
GSLSPGALSS GVPGSGNSSP LPDFLRHH GPKPVSSQRN AGTGSRRVVG
TARCCGELWA TGSKGQGERA TTSGAERTAP RRNCLPGASG SGPELDSAPR
TARTAPASGS APRESRTAPE PAKRMRSRG LFRCLPQR PGRPPGLPA
RPEARKVTSR NRARFRAAN RHPQFPQYNY QTLVPENEA GTA VLRVVAQ
DPDAGEAGRL VYSLAALMNS RSELEFSIDP QSGLRTAAA LDRESMERHY
LRVTAQDHGS PRLSATTMVA VTVADRNDHS PVFEQAQYRE TLRENVEEGY
PILQLRATDG DAPPNANLRY RFVGPAAARA AAAAAFEIDP RSLGISTSGR
VDREHMESEY LVVEASDQOQ EPGRSATVR VHTVLDEND NAPQSEKRY
VAQVREDVRP HTVVLVVTAT DRDKDANGLV HYNISGNSR GHFAIDSLTG
EIQVVAPLDF EAEREYALRI RAQDAGRPP LSNNTGLASIQ VVDINDHIPI FVSTPFQVSV
LENAPLGHSV IHQAVDADH GENARLEYSL TGVA PDTFV INSATGWVS
SGPLDRESVE HYFFGVEARD HGSPPLSASA SVTVTVLDVN DNRPEFTMKE
YHLRLNEDAA VGTSVSVTA VDRDANSALS YQITGGNTRN RFAISTQGGV
GLVTLALPLD YKQERYFKLV LTASDRALHD HCYVHINITD ANTHRPVFS
AHYSVSVNED RPMGSTIVVI SASDDDVGEN ARITYLLEDN LPQFRIDADS
GAILQAPLD YEDQVITYTLA ITARDNGIPQ KADTTYVEVM VNDVNDNAPQ
FVASHYTGLV SEDAPPFTSV LQISATDRDA HANGRVQYTF QNGEDGDGDF
TIEPTSGIVR TVRRLDREAV SVYELTAYAV DRGVPLRTP VSIQVMVQDV
NDNAPVFP AE EFVVRVENS IVGSVVAQIT A VDPDEGPN HIMYQIVEGN
IPELFQMDIF SGELTALIDL DYEAREQYVI VVQATSAPLV SRATVHVRLV
DQNDNSPVLN NFQILFNYYV SNRSDTFPSG IIGRPA YDP DVSDHLFYSF
ERGNEQLLV VNQTSSELRL SRKLDNNRPL VASMLVTVID GLHSVTAQC
LRVVIITEEL LANSITVRLE NMWQERFLSP LLGRFLEGVA AVLATPAEDV
FIFNIQNDTD VGGTVLNVSF SALAPRGAGA GAAGPWFSE ELQEQLYVRR
AALAAARSLD VLPFDDNVCL REPCENYMKC VSVLREDS A PFLASASTLF
RPIQPIAGLR CRCPPGFTGD FCETELDL CY SNPCRNGGAC ARREGGYTCV

NP_001398.1

Cadherin EGF
LAG Seven-Pass
G-Type Receptor
3 (CELSR3)

193524

656

DTEAGRCV PGVCRNGGTC TDAPNGGRC QCPAGAFEG
SSFVMFRG LRQRHFLTLS LSFATVQQSG LLFYNGRLNE
QVRLTYST GESNTVVSPT VPGGLSDGQW HTVHLRYNK
PSKDKVAVL SVDDCDVA VA LQFGAEIGNY SCAAAGVQTS
LGGVNLPL ENFPVSHKDF IGCMDLHID GRRVDMAAFV
KLHFCDSG CKNSGFCSE WGSFSDCPV GFGKDCQLT
TLWNFGSD MAVSPWYLG LAFRTRATQG VLMQVQAGPH
SVTVTRGS GRASHLLLDQ VTVSDGRWHD LRLEQEEPG
LDFSLFQDT MAVGSELQGL KVKQLHVGGG PPGSAEEAPQ
GSTPGSPA LLPPSHRVNA EPGCVVTNAC ASGPCPPHAD
QPGYYGPG CVDACLLNPC QNQGSCRHLP GAPHGYTCDC
RMDQQCPRG WWGSPTCGPC NCDVHKGFDN CNKNTNGQCH
SCLPCDCY PVGSTSRSCA PHSGQPCRP GALGRQCNSC
RVLYDACP KSLRSGVWWP QTKFGVLATV PCPRGALGAA
EPDLFNCTSPAFRELSLL DGLELNKTAL DTMEAKKLAQ
YFSQDVRVT ARLLAHLLAF ESHQOQFGLT ATQDAHFNE
TGDLWAL GQRAPGGSPG SAGLVHLEE YAATLARNME
NIMLSIDR MEHPSSPRGA RRYPRYHSNL FRQDAWDPH
SPSEVLPT SSSIENSTTS SVVPPAPPE PEPGISIHL LVYRITLGGL
RLPQNPMN SPVSVAVFH GRNFLRGILE SPISLEFRLL
WDPPGLAE QHGVWTDAC ELVHRNGSHA RCRCSTGTG
EGDLELLA VFTHVVAVS VAALVLTAAI LLSRLSKSN
GVAELLFL LGHRTNQL VCTAVAILLH YFFLSTFAWL
VEPRNVDRG AMRFYHALGW GVPVLLGLA VGLDPEGYGN
IWSFAGPV VL VIVMNGTM FLAARTSCS TGQREAKKTS
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WMPACLGRK AAPEEARP GLPGAYNNT ALFEESGLIR
ARSGRTO DQDSQGRSY LRDNLVRHG SAADHTDHS
AMFHRDAGA DSDSDSL EEERSLSIPS SESEDNGRTR
SERLLTHP KDVDGNDLLS YWPALGECEA APCALQTWGS
ANNQPD ALTSGETSL GRAQRKRGILKNRLQYPLV
RAATLGRH AVPAASYGRI YAGGTGSLSPASRYSSRE
ERLEEAPA PVLRLSRPG SQECMDAAPG RLEPKDRGST
AMAGRFGS RDALDLGAPR EWLSTLPPR RTRDLDPQP
DPLPSRP LDSLSRSSNS REQLDQVPSR HPSREALGPL PQLLRAREDS
LDLSSIL ASFNSSALSS VQSSSTPLGP HTTATPSATA SVLGPSTPRS
EVPRSEG HS
cca gccctccaac agcagttggc ccctaagtca gaatggagc aacactagg ccacccggc
t cctactatca gcacacctcc cctgtggcg ccatgtcat tggcctat tctgtctg
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A Homo sapiens

658	193914	Neuropeptide FF 1 Receptor	NP_071429.1	<p>accctggctgt cagtgacctg ctggggggga tctctgcat gccaccacc ctgtgggaca acctcatcac tgggtggccc ttgcacaaag ccacatgcaa gataagcggc tgggtgcacg gcatgtctgt gtcggcttcc gttttcacac tgggtggccat tgcgtgggaa aggttccgtt gcatcgtgca cctttccg gagaagctga ccttgcgaggaa ggogctcgtc acctggccg tcatgggc cctggcgtct ctacatgt gtccctggc cgtcacgctg acctgcacc gtagagagaca ccacttcatg gtagacggcc gcaacgcctc ctacccttc tactctgct gggaagcctg gcccaagaaag ggcatacgca ggtgtctacac cactgtctc ttctgcaca tctactggc gccgcctggcg ctacatggcg tcatgtacgc ccgcatcgcg cgtcaagctct gccaggccgc ggcccgggcc ccggggggcg aggaagcctgc ggaccccgga gcatcgcgcg gcaagagcggcg cgtgggtgac atgctgggca tgggtggcgct gttttcacg ctgtctggc tgcggctctg ggctcgtctg ctgtctcatg actacgggca gctcagcgcg ccgcagctgc acctggcac cgtctacgcc ttcccttgc cgcactggct ggcttttc aacagcagcg ccaacccat catctacggc tactcaacg agaacttccg ccggcgcttc caggccggct tccggcgccg cctctggccg cgccgtcg ggagccacaa ggaaggctac tccagagcggc ccggcgggct tctgcacagg cgggtcttgc tgggtggcg gccagcgac tccggctgc cctctgagtc ggccctagc agtggggccc ccaggcccg ccgcttccg ctgcgggaag ggcggggcgc taccacggc tggccaggg aaggcgctg ctgtccac ctgcctca ccatccagc ctgggataic tga MEGEPSQPPN SSWPLSQNGT NTEATPATNL TFSYYQHTS PVAAMFIVAY ALIFLLCMVG NTL VCFVLK NRHMHTVTNM FILNLAVSDL LVGIFCMPTT LVDNLITGWP FDNATCKMSG LVQGMVSAS VFTLVAIA VE RFRCIVHPFR EKLTLRKALV TIAVIWALAL LIMCPSAVTL TVTREHHFM VDARNRSYPL YSCWEAWPEK GMRRVYTTVL FSHYLAFLA LIVVMYARIA RKLQAPGPA PGEEAADPR ASRRRARVVH MLVMVALFFT LSWLPLWALL LLIDYGQLSA POLHLVTYYA FPFHWLAF NSSANPIYG YFNENFRRGF QAAFRLCP RPSGSHKEYA SERPGGLLHR RVFVVVRPSD SCLPSESGPS SGAPRPRRLP LRNGRVAHHG LPREGPGCSH LPLTIPAWDI</p>	P	Homo sapiens
659	194319	G Protein- Coupled Receptor FLJ22684	NM_025048	<p>agatactgat actttctt caacagcat aagaagtgat tgaagccaca gatactgaa ggaaggcgct cctcgagttg tgggtggaag agataaata ccagtcacag actatgcacc cgaactgtgc tgttcagctc aggggaaaaag aaagtggag tgcgtggct cattttc ttaccctca ctgacggcca cgggtggc tggggaata tcaactgtc cttcagggtga cctatagaga aaagaaactca ttgtgaataa gaaaaaact ctaggccagc tgaagacata tcaactgtc cattattg gtcacatggg ctaattgaa ttatcagagc ttccaggag aaagagagatt tgaagaaatt tctgaagctc tgaagcctc cattattg gtcacatggg ctaattgaa ttatcagagc aaaggctacc acagactgca acagcctgaa tgggtctctg caggtacct gtagagacag ctacacctg ttcttccct calgcttga tccaggaac tctacttc acagcgctgg agcactcca agctgtgaaat gtcactca caacctcagc cagagtgica attctgtga gagaacaaag atttggggca cttcaaaat taatgaaag ttacaaatg acctttgaa ttacttct gctatatac ccaataatgc aaatggaatt gaaatcaac ttaaaaaagc atatgaaaga atcaagggt ttgagtcggg tcaaggcacc caatttcgaa tgcactct gtcggccaag tggagtgca atggcacaat ctaggctcac tgaacctcg caacctcgc ctacgggt caagagatt cctgtccca gcttcccaag tagctggaat tacaaggacc tgcaccaca tccagctaac ttttttga ttttttag agacagggt tcaactgt ggccacatg gttcaact cctgacctca ggtgtatccg ctgctcggc ccccaaaagt ctgggthac aggcaltgag caccacatct ggctaggac cttaaat ttgaaagcalt ctcaaacctg tgggtcagtg agtagaacta caaaacata gcaatagggc agaaacttga aaagagagcag gtagatcagg tgaagtgga tgggaaaaag tgaagggttgg gataagggt tgcgggtgt cgaagggtt attttctt tcaagcaacta cagggtgatal gatgctcat aattggagc cagaagtggt gcttgggt agatatctt gcaagataa catgtatata tcatgtica aaaccagta gtcattgt acagcaata aagaataatt tagtaattt aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaaaaa aaa</p>	A	Homo sapiens

[illegible]

664	194743	FLJ14454	NP_116176.1			<p>aatcaacttga calattalcc aacgttggat gfgcacatgic tggtaactggt cggcctctca cagttaatt tcaagtgtc accaggaaag tcagaaaaac ctacgttaacc tgggttttgg tcaatctgt cataatggt tttatcttca accctctct tggtttggga attgaaact ccaataagaa ctgacagaca agtgaagggt acatcaataa tatgacttt gacaataatg acataccag gacagacacc attacatcc cgaatcccat gfgcacatggt atggccctc tactgacacta ttcttgta gtagacattt ccttggaaagc acicagcgtc gcacagctct attactctt aataaggacc atgaagccic ttcccgcca ttatctt ttatctatc taatgttgat ggagatccca gctatagtat tggctataac agtggggagt attatctc agaagtgaaa taatccacag tgggaattag actaccggca agagaaaaic tcttggctgg caatccaga accaatggt gttataaaa gtcgctgtt gfggtcatic atcgtacctg taaccattt cccatcagc aatgtgtta tggttatc aatctgac aaggtctgt ggaagataaa ccaaacctg acaagcaca aaaaagtttc atocataag aagatgtta gcacattatc tgttgcagt gttttgaa ttactggat ctacgtatc ctatgtctag taatgtatga tagcatcagg atcgtctca gctacatatt cggcctttc aacactacac agggatgtga aattttalc ctgtacatg ttagaacaaa agtctccag agtgaagctt ccaaggtt gattgtctat tctgtatg ggaagaggaa gtcattgctc tcatgtacgc ggccgaggct gcgtgtaag atgtataat tccicaggic atggccaac ttacatgaac gcttaggct actggaaacc tctccagta ctgaggaaat cacactctc gaaagtgaac atgcaagga agcatctag acagtataac ttactgtg tggctttt aatccctcg ttgagttt atctgttct ctccttatt tccagctct ctacgaagt ctctcaat gttttgtc caggattaag aattagataa aacctgtgt ttatttat tgggcataat ggactgtgta gttttctat tttaaalag attgtact gaataaggtg aagaattca cacaacalac aagagtacca ttgttctta tatgttaaa tctgtgac acacttgac aaaaatgtag aacctataac aaattcttt acaagtact ataaagaca caaagagaaa actttacct ctgagacaaa atgactctg atgaacagtg tgtggggat tgcgtgatg tatataact ttagctctg MASCRAWNLR VLAVVCGLL TGILGLGIW RIVRIQRGK STSSSTPTE FCRNGGTWEN GRICITEWK GLRCTIANFC ENSTYMGFTF ARIPVGRYGP SLQTCGKDTN NAGNPMVRL CSLSYGEIE LQKVTIGNCN ENLETLEKQV EDVTAPLNNI SSEVQILTSD ANKLTAEIT SATRVVGQIF NTSRNASPEA KKVAIVTVSQ LLDASEDAFQ RVAATANDDA LTTLIEQMET YSLGNQSV VEPNIAQSA NFSENAVGP SNVRFSVQKG ASSLVSSST FHTNVVDGLN PDAQTELQVL LNMTKNYTKT CGFVVYQNDK LFQSKTFTAK SDFSQKIIS KTDENEQDQS ASVDMVFSKP YNQKEFQLYS YACVYWNLSA KDWDITYGCQK DKGTDGLRC RCNHTTNFAV LMTFKKDYQY PKSLDILSNV GCALSVTGLA LTVIFQIVTR KVRKTSVTWV LVNLCISMLI FNLLFVFGIE NSKNLQTS GDINNIDFN NDIPRTDTIN IPNPMCTAIA ALLHYFLLVT FTWNALSAAQ LYLLLRITMK PLPRHFLFI SLIGWGVPAI VVAITVGVY SQGNPNPQWE LDYRQEKICW LAIPEPNGVI KSPLLWSFV PVTILISNV VMFITISIKV LWKNNQNLS TKKVSSMKKI VSTLSVAVVF GITWILAYLM LVNDDSRIV FSYFCLFNT TQGLQIFLY TVRTKVQSE ASKVLMLSS IGRKSLPSV TRPRLRVKMY NFLRSLPLTH ERFRLLETSP STEEITLSES DNAKESI cggccgccgg cagggtcgc gaggaccca cgtctctaa aagagacaga cgcacccgat gctcggattg gatgaagtc aaagctttaa tccctggaaa gggcacgaac aatgaatcca ttatgcat ctgttggaa cacctctgcc gaacttttaa acaaatccig gaataaagag ttgcttacc aaactgccag tgggttggat acagcalcc tcccttccat gattgggatt atctgtcaa cagggtcgtgt tggcaacalc ctatgtat tcaataat aagatccagg aaaaaacag tccctgacat ctatctcgc aacctggcig tggctgatt ggcacacata gttggaatgc cttttctat tcaccaatgg gcccgagggg gtaggtgggt gttggggggg cctctctgca ccatcatcac atccctggat actgttaaac aattgtcgtg tagtgccalc atgactgtga ttaggtgtgga caggtaattt gccctcgtcc</p>	Homo sapiens
665	194745	G Protein-Coupled Receptor SLT/MCH2	NM_032503		A		Homo sapiens

666	194745	G Protein- Coupled Receptor SLT/MCH2	NP_115892.1	<p>aaccatttcg actgacacgt tggagaacaa ggtaacagac catccggatc aatttggcc ttggggcagc ttctttatc ciggcatcgc ctgtctgggt ctactgaag gtaacaaat ttaagacagg tttgtagagi tttgtctttg atttgacatc ccttgacgat gtactctgtt atacacttta ttgacgata acaactttt ttctccctt acccttgatt ttgggtgct atatttaatt ttatgtctat acttggagga tttatcaaca gaataaggat gccagatgct gcaatcccaag tgaacaaaa cagarariga tgaagtgc aaagatgggt ctgtgtctgg tggatgctt tatctgagt gctgcccctt atcatgatt acaatgggt aacttacaga tgggaacgoc cacatggcc ttctatgg gtattacct ctcatctgt ctacgtatg ccagcagcag catiaacct ttcttaca tctgtctgag tggaaatttc cagaacacgc tgcctcaat ccaagaaga ggcactgaga aggaatacaa caatatggga aacacttga aatcacatt tiaggaaagt acaatggatca ccatgagct agacatgatt gctatctta tggtaatt tagaaagggc aggttaccg atatgttat gccattctt ctgtgtact tttgtactt agcagcatgg aagagaagtg taacatgca aatacaatga gcttaattg ctaactgtaa aaaaaaaa aaaaaaaa</p>	Homo sapiens
667	194756	Chemokine Receptor FKSG80/GPR81	NP_032554	<p>MNPFHASCWN TSAELLNKSX NKEFAYQTAS VVDTVILPSM IGHSTGLV GNILIVFTII P RSRKTVPDI YICNLAVADL VHIVGMPFLI HQWARGGEWV FGGPLCTIIT SLDTCNQFAC SAIMTVMSVD RYFALVQFPR LTRWRTRYKT IRINLGLWAA SFILALPVWV YSKVIKFDG VESCAFDLTS PDDVLWYTLV LTTTFFFL PLILVCYILI LCYTWEYQQ NKDARCCNPS VPKQXVMKLJ KMVLVWVVF ILSAAPHYHVI QLVNLQMEQP TLAIFYVGYL SICLSYASS INPFLYLLS GNFQKRLPQI QRRATEKEIN NMGNTLKSHP</p>	Homo sapiens
668	194756	Chemokine Receptor FKSG80/GPR81	NP_115943.1	<p>ccacacac aggaacgca tcttgggtga tgaagtgaaga cagcagcagc cttgggtgagt gctaacgctc agataagcat ctgtccatt ttggggactc cttgggtgc ttgcacccgc gacattgct ctgtcccgcc calgtacaac gggctgtgct ggcgcatga gggggacacc atctccagg tgaatggcc gctgtcatt ttgggtcttg tgcctggcgc actaggcaat gggtgccc ttgtgtgtt ctgtctcac atgaagact ggaagcccaag cactgttac ctittcaat ttggccgtggc tgaattctc cttatgact gcttgcctt tggacagac tattaatca gacgtagaca ctgggtttt ggggacalc cctgcccagt ggggtcttc acgttggcca tgaacaggc cgggagcalt gttgtctta cgttgggtgc tgcggacagg tatticaaag tggccaacc ccacacgc gtaacacta tctcacccg ggtggcggct ggcattgct gacacctg ggcctgtg atccctggga cagtgtatc ttgtgtgag aaccatctt cgttgcaaga gacggcgic tctgtgaga gcttcatcat ggaatggcc aatggcggc atgacatcat gttccagctg gatttctta tgcctcggc calcatctta ttgtctct tcaagattgt ttggagccg aggcggaggc agcagctggc cagacaggct cggatgaaga agggacccg gttcatcag ttgtggcaa ttgtgtcat cacatgtac ctgcccagc ttgtgttag acttatct cttgtggagg tgcctggag tgcctggat cctctgtcc atggggcct gacatacc ctacgtta cctacatga cagatgag gacccctgg gattattt ttcaagcccc tctttccca aatctaca caagctcaa atctgagtc tgaacccaa gcaagccagg cactcaaaa cacaaggcc ggaagagatg ccaatttga accctggc caggatgic atcagtggtg caaatgtt ccaagccag tctgatggc aatgggaltc ccacatgtt ggtggcact gaacagcag accaacaaca ctgaggaaga tagatgggtg acttgaatt aacgtgtct aaggggtggc ggggttgaa aatggcacc cctttcta ttgcaagac gcttccga catgaactgc atcttcta ttctgtcga aatgaattc acacaact accitttgg gagggtcag tt</p>	Homo sapiens

669	194757	G Protein- Coupled Receptor Ls194757	AL162032	QPGHSKTQRP EEMPISNLGR RSCISVANSF QSQSDGQWDP HIVEWH gltcatggagt gctgcacgg gacgtctcgg agagtcggag acgtlaagcag cacagtggag ccaccaacag cagcaaccga glttcgtgt acttgccct cctggacttc agtcccgagg aagggggtctg gtcgaaccac gggctgtcgc tcacgagagg aaactcacc tactccgtt ggcgtggac tcactcacc aacttcgca tctctatga ggtgtgtccg ctggaggtca acattgggcat cctcatgct gttacacagg tcactcaca gatacagccc gacacatata agatccalg gtaacccagt gcttcaagt tgaacggcaa ggcagtggcc gttcgtctgc ccatctggg tactctggg gttctggcg gctctgt caacgggtgt gctgtgttt tccatgaat gtttgccag ctcaactcc tgcagggact gttcatatc cttttcatt gttcttga ttcagagggt agagccgct tcaaggcaca aaaccaagg tggctgctca cggagcagct cgcocgcgacc tccaacggga agcccttca ctgggactc atgaaggga cccggccagg catggctcc accaagctca gcttgggga caagagcagc cacttgccc accgctcga cctgtcagcc gttggagccg gggggctggc aaocaggcca ggtctgcgctc agaacaccc ccccaaaca gaattgaalg cccacottt gcccaggac cctctctg ctgctgtctg gacatggggg ttgtggcccc gagacagctg tctccctg tgaactggc tgcgggagca cactgtcag ccaagcagcc tgaagccag gccaagctgg gctctcgc ctgtcaloca cccgtgggct gtagtactc ctggggggat tccagggaca cagtggccctg actgtgtagg tgccctggag cctccctca tcatcagca tcagacocag cgaaggccagg acactcgggg ccggctccgc agcaccaggga ggggagttc agccctgtg ccttgggggg gcttgggggac tcaaggccaa agaggtgggt cagggtccca cgcacotca gtcaggccga ggcagctggg ggtgtgtgtg gtagggcatg cggaggtccc agtgtctgaa tccactgtgt gttgagttoc ccacagccgg cgttagccgt ggtgtgtgt tctgtagggt gtcggggct gggcccaact gttgtgtgt atcagttggg ggccctgcc caagccgagc tggagccgt ggcgggggag gttgactc caggtggggg cgaacccctt gcccgtct tgccgggggt cctctgc acgtgtagag ccgtctggg ccttgggct gctgtgtgt gctgtgtgt ggggggggt ctgggcaat cgtgtgtgt ttgctctt tggagccaa ttgggctta agtggctc cctccctg tgcagcctc ctgtgtgt cttggggcac agggagctgg cgttcccg cagtgcctgg tgcaggggt gaaagtggag gggcatttoc agggcactgc tttccaga ggtttctca tggctcag gactctac agtttctaa tggggcagac ccgctggcagg tagcacagt cgtctcgt ggtcaccalg agacagacct gctgtgtgt cccactgac tggagagggga gggctgtgtg cagccgtgt ttctgtgt aggggaaatt atggactcag actcagcccc agaggagagtg gtagaattgt taltggaccca tgtgtgggca tgatctgt gaaacaggt ttgggtatc agtgtgtat taaagaccca ccggagatag ggtgtgtgt ticalact gctgtatgca ctgtgtgt ctgtgaaag tgggttagag attcaacct ggtttgata ctggaaact ttctttaa actgtgacca tgattcatt cagccctcc acacccat gttgtcctt ttcaagtg agttttat gtagcctgt gctccttgc agccacotg gtgtcttt aaltgaact ttccctgt cgcctggagt gtagcactca tctgcaggcc tctcctgcat gggggagggt ggcaggggag agcatgtct cagggggtgaa ccttgtct tctgtcagg gtagggccagg ctgcacacag cacttgcac altgtgacag tgcacgggc cctgtgtat gctcctgcaa cgtgtctg cgcggggcac ctggctgtct caggccaaag ccgtgttca gtagagagc ccatgttag taltgactaa agtccatgt ttggcactg cccagggctc cgtgtgcccc agaaacagg tcacatggac caggtgcca gattcctac agccgggtga gcaactagaa gttgagaaac tttattct caatgtacac ttggatatt ctttatt agtttact gaaacaaat aagtaaggaa ctacttttag ttatgtgaa attattgt ttatgtt gccgtatca tctatagc taatattca agataagtaa tgaacaaac ctgtctaac ctttgttt caatgaatga aagtcalga cttattat aggtctalg ttgtgtc tgcagact ttattacta tacaattt gggccaaaat aagaaatgg aaagaaatga atgttgtt talagtagaa gaaagatgt gacactaagt tttgtgtt ttatgaat aaactcagt cctgaaaaaa aaaa	A	Homo sapiens
670	194757	G Protein- Coupled Receptor Ls194757	CAB82385.1	HGVSARDVLE SRTRQHSEA TNSSNRVFVY CAFLDFSSGE GVWSNHGAL TRGNLTYSVC RCTHLTNFAL LMQVVPLEVN IGILIAVTRV ISQISADNYK IHGDPSAFKL TAKAVAVLLP ILGTSWVFGV LAVNGCAVVF QYMFATLSL	P	Homo sapiens

671	194858	G Protein-Coupled Receptor LS194858	LG94710	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccgtgcagg cacttggg cggctgtccct ccagggggct gtagtggct gatgccag cccatggct acggggcag cgtgtgact ggcacttct agggagaggga gggagacag tgtccaggc cccatggcg ggcgtgct ataggccagg actgagaggga gcaagtgtggc cactgtggg cccagcaca gcccgaagg cagcatggct ccagctgtg ccctgtctg cctccagga agggccggg caggggcagg gggctcagc cggcacatg cccgtccag cggcagatg tcctcagct ggcgtggg agggccggg caggggcagg agaggagagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtacaggt agggggctgg gaagatagcc tgggagctgc agttggcacc aggggtccag tggttccac ccaggcggg cagactggga aagagcagg gaccagcoca ggtgaggagc agggccagcc gaaatgctcc agggggctgg agttggctca ggaactggat gtagcgtcc ccgtgcaca gcaagaggt gggagagagc agggagagagc agaaatggg agccaagtag acgagaggc aggaacagta acccggcga cttgttcc acagccggc caatgtggg aatggccagc ccgtgagcag cccagcagc agtaggctca ggaagagagca gccaagaggt gggctgcga gggggggc ccaggcagc ccagggcta ggaagaggt cgcgtgtg atgagggctg ccaggggcag gggagagccc aagccccc tgggaatggg gctgggccc tggcagtc tgtggggc calctgttc ctggggcag gggagagctg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLTJL RKAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWT GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERAVCRDEP SALARALTWR QARAQAQAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagagcagc gctagtag tgggggggt tgaicctaa tgtattccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaac tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat gcttctta aatgaggag taaatccac atggcagggt gggggggaga atcagagc atcagcgtg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag cattggatca accatccag tctgggtac agaatgaca ccaatcaac gactgtgagg gactcttg tacaagcaga ccctgagct caggggctg aggtgcatog ttccctgt cggctgaca ggaagcggc tgggtctg gctcggggc tggcgcagc gcaaggagc tgtctcagc taccctca accgggtgc gggggactc cttctcta gggggccacat tatatgttc ccgttagcc tcaatatt ccggccacc atctcaaaa tctcagtc ccactgggta ccactggcc cggccagat accgtcac agcggcata gcaaggagc cggctgtcc atctgtggc ccactgggta ccactggcc cggccagat accgtcac ggcagatgt gtcgtctt gggccctgt cgtgtcgg agtatctgg agtggatgt cgtgactt cgttttagtg gttctgattc tgtttgtgt gaaagtcag attcattac aatcgggtg cttgtttt tatgtgtgt tctgtgtgg tccagccgtg tctgtgtgt caggattctc tgtgtatcc ggaagatcc gctgacagg cttgacgta ccaatctct cacaagtc gcttctcc tctgtggct ggcctttggc attcagtggg cctgtttc caggatccac cttggatgga aggtttat tttgcatg catctgtt ccatttct gttcgtctt aacagcag ccaacccat cattuact ttgtgggt cttttgga gctgcaaat aggcagaacc tgaagctgt tctcagag gctctgcagg acagcctga ggtggatgaa ggtggaggggt ggttctca ggaacccgtg gagctgtcgg gaaagcagtt ggaagcagta ggaagaaact ctgcccgtc agacagag actttgagagcaa tctgtgtc ccacccctga caantatg cattttct agcctctgc ctgagaaag	A	Homo sapiens
672	194858	G Protein-Coupled Receptor LS194858	ENSP00000053 533	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccgtgcagg cacttggg cggctgtccct ccagggggct gtagtggct gatgccag cccatggct acggggcag cgtgtgact ggcacttct agggagaggga gggagacag tgtccaggc cccatggcg ggcgtgct ataggccagg actgagaggga gcaagtgtggc cactgtggg cccagcaca gcccgaagg cagcatggct ccagctgtg ccctgtctg cctccagga agggccggg caggggcagg gggctcagc cggcacatg cccgtccag cggcagatg tcctcagct ggcgtggg agggccggg caggggcagg agaggagagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtacaggt agggggctgg gaagatagcc tgggagctgc agttggcacc aggggtccag tggttccac ccaggcggg cagactggga aagagcagg gaccagcoca ggtgaggagc agggccagcc gaaatgctcc agggggctgg agttggctca ggaactggat gtagcgtcc ccgtgcaca gcaagaggt gggagagagc agggagagagc agaaatggg agccaagtag acgagaggc aggaacagta acccggcga cttgttcc acagccggc caatgtggg aatggccagc ccgtgagcag cccagcagc agtaggctca ggaagagagca gccaagaggt gggctgcga gggggggc ccaggcagc ccagggcta ggaagaggt cgcgtgtg atgagggctg ccaggggcag gggagagccc aagccccc tgggaatggg gctgggccc tggcagtc tgtggggc calctgttc ctggggcag gggagagctg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLTJL RKAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWT GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERAVCRDEP SALARALTWR QARAQAQAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagagcagc gctagtag tgggggggt tgaicctaa tgtattccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaac tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat gcttctta aatgaggag taaatccac atggcagggt gggggggaga atcagagc atcagcgtg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag cattggatca accatccag tctgggtac agaatgaca ccaatcaac gactgtgagg gactcttg tacaagcaga ccctgagct caggggctg aggtgcatog ttccctgt cggctgaca ggaagcggc tgggtctg gctcggggc tggcgcagc gcaaggagc tgtctcagc taccctca accgggtgc gggggactc cttctcta gggggccacat tatatgttc ccgttagcc tcaatatt ccggccacc atctcaaaa tctcagtc ccactgggta ccactggcc cggccagat accgtcac agcggcata gcaaggagc cggctgtcc atctgtggc ccactgggta ccactggcc cggccagat accgtcac ggcagatgt gtcgtctt gggccctgt cgtgtcgg agtatctgg agtggatgt cgtgactt cgttttagtg gttctgattc tgtttgtgt gaaagtcag attcattac aatcgggtg cttgtttt tatgtgtgt tctgtgtgg tccagccgtg tctgtgtgt caggattctc tgtgtatcc ggaagatcc gctgacagg cttgacgta ccaatctct cacaagtc gcttctcc tctgtggct ggcctttggc attcagtggg cctgtttc caggatccac cttggatgga aggtttat tttgcatg catctgtt ccatttct gttcgtctt aacagcag ccaacccat cattuact ttgtgggt cttttgga gctgcaaat aggcagaacc tgaagctgt tctcagag gctctgcagg acagcctga ggtggatgaa ggtggaggggt ggttctca ggaacccgtg gagctgtcgg gaaagcagtt ggaagcagta ggaagaaact ctgcccgtc agacagag actttgagagcaa tctgtgtc ccacccctga caantatg cattttct agcctctgc ctgagaaag	P	Homo sapiens
673	194878	MrgX3 G Protein-Coupled Receptor LS194878	AY042215	QGLFIFLHC LLNSEVRAAF KHKTKVWSLT SSSARTSNAK PFHSDLMNGT RPGMASTKLS PWDKSSHSAH RVDLSAV uagttcaag tcaaggtcga cactgttgg gctgttggg tggtaggcaa tgcgtggggc gggactgtcc cgggaggctc ttcccacag cccgtgcagg cacttggg cggctgtccct ccagggggct gtagtggct gatgccag cccatggct acggggcag cgtgtgact ggcacttct agggagaggga gggagacag tgtccaggc cccatggcg ggcgtgct ataggccagg actgagaggga gcaagtgtggc cactgtggg cccagcaca gcccgaagg cagcatggct ccagctgtg ccctgtctg cctccagga agggccggg caggggcagg gggctcagc cggcacatg cccgtccag cggcagatg tcctcagct ggcgtggg agggccggg caggggcagg agaggagagc agcagcacc ccggcgggca gcaaggagcc atagacttg aggtacaggt agggggctgg gaagatagcc tgggagctgc agttggcacc aggggtccag tggttccac ccaggcggg cagactggga aagagcagg gaccagcoca ggtgaggagc agggccagcc gaaatgctcc agggggctgg agttggctca ggaactggat gtagcgtcc ccgtgcaca gcaagaggt gggagagagc agggagagagc agaaatggg agccaagtag acgagaggc aggaacagta acccggcga cttgttcc acagccggc caatgtggg aatggccagc ccgtgagcag cccagcagc agtaggctca ggaagagagca gccaagaggt gggctgcga gggggggc ccaggcagc ccagggcta ggaagaggt cgcgtgtg atgagggctg ccaggggcag gggagagccc aagccccc tgggaatggg gctgggccc tggcagtc tgtggggc calctgttc ctggggcag gggagagctg gaggcggcagg cggcagc QDTRHGNRC RAGCSNLTJL RKAQAGQAP APNSHACRLP LQDSPVPRTK MTPNSTGEVP SPIKGALGL SLALSLIT ANLLALGIA GTAAACAATCW LLLPPTAGV AAHGSGIATL PGLWNQRRG YWSCLLVYLA PNFSLSLA NLLL VHGERY MAVLRPLQPP GSRLALLT WAGPLLFA SL PALGWNHWT GANCSSQAIF PAPLYLEVY GLLPVGAA AFLSVRLAT AHRQLQDICI LERAVCRDEP SALARALTWR QARAQAQAML LFGLCWGPYV ATLLSVLAY EQRPLPGPT LLSLSLGS SAAAVPVMG LGDQRYTAPW RQPKGACRG CGEPPGTVP APALPTTQAA KAVSTWT tcaggccag gataagtaa tcatgggtc cagagcagc gctagtag tgggggggt tgaicctaa tgtattccc atgtagcac agaactgg tggcagtaga gaggaggcag gctcagag cagcagaac tggatticaa actggattg aggacccca cctttgata ggtgactat tctgtgag tctgtat gcttctta aatgaggag taaatccac atggcagggt gggggggaga atcagagc atcagcgtg gatacaac tgggttctgt ttccagggtc accagactgg ggttctgag cattggatca accatccag tctgggtac agaatgaca ccaatcaac gactgtgagg gactcttg tacaagcaga ccctgagct caggggctg aggtgcatog ttccctgt cggctgaca ggaagcggc tgggtctg gctcggggc tggcgcagc gcaaggagc tgtctcagc taccctca accgggtgc gggggactc cttctcta gggggccacat tatatgttc ccgttagcc tcaatatt ccggccacc atctcaaaa tctcagtc ccactgggta ccactggcc cggccagat accgtcac agcggcata gcaaggagc cggctgtcc atctgtggc ccactgggta ccactggcc cggccagat accgtcac ggcagatgt gtcgtctt gggccctgt cgtgtcgg agtatctgg agtggatgt cgtgactt cgttttagtg gttctgattc tgtttgtgt gaaagtcag attcattac aatcgggtg cttgtttt tatgtgtgt tctgtgtgg tccagccgtg tctgtgtgt caggattctc tgtgtatcc ggaagatcc gctgacagg cttgacgta ccaatctct cacaagtc gcttctcc tctgtggct ggcctttggc attcagtggg cctgtttc caggatccac cttggatgga aggtttat tttgcatg catctgtt ccatttct gttcgtctt aacagcag ccaacccat cattuact ttgtgggt cttttgga gctgcaaat aggcagaacc tgaagctgt tctcagag gctctgcagg acagcctga ggtggatgaa ggtggaggggt ggttctca ggaacccgtg gagctgtcgg gaaagcagtt ggaagcagta ggaagaaact ctgcccgtc agacagag actttgagagcaa tctgtgtc ccacccctga caantatg cattttct agcctctgc ctgagaaag	A	Homo sapiens

674	194878	MrgX3 G Protein-Coupled Receptor	AAK91806.1	MDSTIPVLGT ELTPINGREE TPCYKQQLSF TGLTICIVSLV ALTGNAVVLW LLGCRMRRNA VSIYILNLVA ADFLFLSGHI ICSPRLINI RHPISKILSP VMTPFYFIGL SMLSISTER CLSILWPIWY HCRPRYLSS VMCVLLWALS LLRSILEWFMF CDFLSFGADS VWCETSDFIT IAWLVFLCVV LCGSSLVLLV RILCGSRKMP LTRLVYTILL TVLVFLLCGL PFGIQWALFS RIHLDWKVLV CHVHLVSIFL SALNSSANPI IYFFVGSFRQ RQNRQNKLKLV LQRALQDTPE VDEGGGWLPQ ETILESGSRL EQ	P	Homo sapiens
675	194903	G Protein- Coupled Receptor GPCRB3	LG100657	icagggtggag ccgacggccc tgggtgtagc ctgaatggag gctctggaaagt gctctgtgct gttgaggctt gggcggcaga ggatcacgta gacataggc agaaaatacc caccgaagcc gctgtctagg ctgtctagcc cagccatcat gttggccgca ggcaggtaact tggcgtcgta gacgtctggcc gttgtgaaga aggcgatalcca ggacacgaag ttgaagagca ggcctgaagg gacacattg gccctgtgt agttcttgg caagtccita cccaggtaag tgcaggcaaa ggcactgag gaggaggaagg cattgtaga gaaaggccagt atgaagccca gggaagtgtgt ctctgtgac tcaagcalca ccagatgggg gaaagcgtgg tattccctag caggcagtg ggtccacacc accagcccaag ttgagacagt aagcagctgg gccgtgagc tgalcatcac aaacaggcca gcaccgtgtg ttggaccaca ggcgtgtgtg aatgtaggtta ccttgggtga aaacttgaag atgatgatta gttggaaatga gcgaactgtc aggcagagca ggaagataggt gaaaccaaagg gcaaaagagg cctggcgtgag caagcacgca ggccttgtgg gttcccaaa gaagccatag aggtctgccc lacctgtgc cagtggaagccc agcataagaa agcacaggcg ggccctgtgt gacctacca cagggggtgtc aggtgtccag gcaaacaggc cagcagttcc aagcagcagc agcagcagca gggtgttagc tgcagcagc accaaagagg tgtgtctacg caaagccaaa aacaccacag tgcgcggggaa gcaaggcttgg cttccctcag gttccacac ttcttcca caaggctggc atctgtagag gtcgtgaagg gaaaggccaaag aagggtccgtg agagccagat gaggcagatga ggaataggaa atagggggctt gcaaggaatct ggggaagatg lacaggggca gctagatcat actaggcata gttgggtagg gttatggccgg agtgggggctt gaggccagc atttctcaa aatgctgtg ttaattacag actgtgaaga cacacagtc ggttctgtat ggtctatgat cccatgaggg ttgtgcaac cctaggggagg acctaacct ggtagctctg cccacatacc agaaaggtta cgtatgtag ggaagcagctt gctcccaagg gagggtgcatg taacccctc ctctggcag catttcatg aaccatttc ctgagctgt gctctgtgtt ttctgtgt cctgaccctc tgaaggcaga agggaaagt tctgtccct acagagtag gaaaggaaga gaattgtggcc cctggacacc aactaaaggac ctgaggtcctt agctaccta tttgtctct gttctgacc ttgcattct ggaatggggaa tgcgtttt ttctgtctg cagacagct agtatctgta ttacggccaa gctgtcaag gtagctagctg tcttggcat gggcaacaga agggacagta ggaacagagg gcaaaagg gcaaatagct aatattcatt agagaaagag gttgaatca ggaacagct gctttgtag gtagtgtgat gacagctct taacagagga cacacctcag tctaaagctt tcagtgtgt aattctct ttcttt ttgttga cagagttt ctctgtgc ccaggtctgga gtgcaatgt gcaatctgg ctacagcaa cctccgctc ccgggttcaa gcaattctc tgcctcagc tcccagtag ctggcaatg agggcacagc cacacgccc ggctaaact ttgtatt ttgtttat ttgtttat ttgtttat ttgtttat ttgtttat gacctcagg gatccacca cctggctc ccaaggtgt ggaatgtag ggaatgtag ggaatgtag ggaatgtag ggaatgtag tttttgggg ggaaggaatc tgcgttgg tgcaggtgt ggaatgtag ggaatgtag ggaatgtag ggaatgtag ggaatgtag tctgtctca gctcccgag tagctgggat tacaggcag cggcaccaca cccagctat ttattatt ttgtttat gttgtgtg accatgtgg ccaggtgtgt ctggaactcc cgaactcag tgalccacc ggtctagct cccaaaggtc tgggtttaca ggcatgagcc accgacacca gttgtgtgtt ctctgtat gaaatgtc tgggtttcag tgtctcaca cctgtgaagct actggcagcc cagttgtctgg gccctgtgtc tgggtttcag cagatgggg ccaaggtttgg cctctccc accgtgtcagc ccccggggagt gctgtgttagc tgcctgtc cattgtccac tcaacctct tgtttgtgaa ggttccagcc ccacaggggca cacactcaaa gcaagcagta tggaaacccc taacctctg ctgtgtccct tcaagcagct cgtgtgtgaa cacagactta ggcactctga agaaagccaca gggggccacac gtagggggcc aagttcaagg acagctcaca tgttgaacag aaaacagaa ctctgtgcat ctgacctcag ggtcactcc caggtgtcaggg cccctgtgtc tgtgaacttc cggccaggg catctgtcaca	A	Homo sapiens

[illegible]

677	194904	WO0034334- hFB41A	AX147788	<p>VLGSSTWSPV QLNINETIKQ WHGKNHQVPK SVCSSDCLLEG HQRVVVTGFHH CCFECVPCGA GTFLNKSELY RCQPCGTEEW APEGSTCFP RTVVFLALRE HTSWVLLAAN TLLLLLLGT AGLFAWHLDT PVVRSAGGRL CELMLGSLAA GSGSLYGFFG EPTRPACLLR QALFALGFTI FLCLTVRSF QLIIFKFST KVPTFYHAWV QNHGAGLFVM ISSAAQLLIC LTLW VVWTP L PAREYQRPH LVMLECTETN SLGLFLAFY NGLLSISAF A CSYLGKDLPE NYNEAKCVTF SLLNFVSWI AFFTTASVYD GKYLPAANMM AGLSSLSSGF GGYFPLKCYV ILCRPDLNST EHFQASIQDY TRRCGST</p> <p>gagcaacatg atcttttga agtactgac ggtgtgttc ttgacgtca cgaagcacag agtgttgatc atgtgttgc tcatggcat gcactcgacg atgtagaagg cagtgaaggta gtgtcttcc ttcaacaaca cgtgtgggaa gaagtcgcgc acgatggiga agccgtagaa gggcgccocag catagcacgt agggcggtgag gatgcacatg agcacacagg cgtcttctt gggcgagcgc agcctttgc ggtatgtctc tgtcttgaat ccaggagacc ccttgaacca ggtctcccg gagatcctgg catagcacag ggtcatggg accaggggc ccagaattc tatgccaaag ataaagagg agtaggacti gtagtagagc tgcgtgtcca caggccagat ctggccgcag aagatcttt cttggcttct gacaatgac agggacgtct cgtgtgtgaa gtaggggaa gggatggcga tcaggatgga cactgtccac accaaggcaa tcaggccagt ggtgtgtgg cacttctc ggtgtctcag cggatggaca atagccagat acctaggga agaacacaa gtagggcagc c</p>	A	Homo sapiens
678	194904	WO0034334- hFB41A	LR114	<p>MGFMDDNATN TSTFLSVLN PHGAHATSP FNFYSYDYM PLDEDEDVTN SRTFFAAKIV IGMALVGIML VCGIGNFIFI AALVRYKKLR NLTLNLIANL AISDFLVAIV CCPFEMDYV VRQLSWEHGH VLCTSVNYLR TVSLYVSTNA LLAIDRYL AIVHPLRPRM KQATATGLIA LVWTVSILIA IPSAYFTTET VLVIKSEQE IFCGQIWPVD QQLYKSYFL FIFGIEFVGP VVMTLCYAR ISRELWFKAV PGFQTEQIRK RLRCRRKTVL VLMCILTAYV LCWAPFYGFT IVRDFFPTVF VKEKHYLTAF YIVECIAMSN SMINTLCFVT VKNDTVKYFK KIMLLHWKAS YNGGKSSADL DLKTIGMPAT EEVDCLRLK</p>	P	Homo sapiens
679	194905	G Protein- Coupled Receptor MGC7035	BC014241	<p>ggcacaggc gccggccgc atgtggagct gacgtggtt caacggcaca gggctgggg agggagctgc tgcctggcag gacttgacg tggggctgtc actgtgtcg ctgtcggcc cgtgtgggg cgtgtgggg ggcctgtgctt acaagccct gctgtgtgt gccaacctac acagcaaggc cagcatgacc atgcccggac gtagttgt caacatggca gtagcaggcc tgggtgtcag cggccctggcc cctgtgcacc tgcctggccc cccgagctcc cgtgtggggc tgtgtgggtt gggcgggcga gtccaggttg cactgcagat cccctcaat ggtgtctcac tgggtggccat gtagtccac gcccgtctga gcccagacca ctacatcgag cgtgtcacgc cggcgacctt catggccagc ggtgtacaca cggcgggcagt ggtgtggcttc gttgtgggtg gcccgtgtct gaccagttc tctctgtct tcttctacat ctgcagccat ggtgtacccc ggcgctaga gttgtggcgaag atgcagaacg cagaagctgc cgacccacg ctgtgtgtca tgggttagt ggtgtggcaga ctggccaccc tctacggtct ggtgtctac tcccgcttc gtagggaggga caccgcccct gacggggaca cggcccggtt gtagggccctg gacacaggc tctgtgtggc caccgtgtgc accgagtttg ggtctgtgac gccacatct ctgattctgc tggggcacac ggtcatc tcgcaggagg agcccgttga cgcacactac ctgggggtac tgcattgti gaaggatttc tccaaactcc tggcctctc cagcagctti gtagaccac tttctaccg ctacatgaac cagagtttc ccagcaagct ccaacggctg atgaaagc tggcctggcg ggaocggcac tgcctcccg accacatggg ggtgtggcag gttgtggctt aggtgtggcca ggcctctgg ggagacgtga ctctgttga cgcagagcac ttagtaccc tggagctcc ccacatctt ccagaaaggag acgagctct ggagaggag caggagggtt gttttcttg aagtttctt ttccacaa atgcccactt tggggcaggg ctgtgtgtcc cgtgtgtgt atctgtgttg agtctcccg agggcctgtg gttcccaaa cagcagctc aagggtccaca tctgtcaaaag</p>	A	Homo sapiens

680	194905	G Protein- Coupled Receptor MGC7035	LR112	<p>ccctcgcgc ttacgctcc tcagcatca gttgtcaat gaagtga gaagctagag ccagttatcta tactttggg ttaaaatcact tgattccccc ttgtttgttt tacaataca gatgtttctt agaaaaatga caaatagtaa aatgaacaaa accctacgaa agaattggcaa cagcagggt ggccggggcc tgcagtggtg cgggtgtgc tagcaaggcc tgcgggtgtg tgcgcagctga ccacaggggt ctgagaacat ttacagaag tgcctgagac gggagagacat ggcgtgtgtt aatagggtgt attcaatagc agtgacgggc tctctcagc caccaaatgt cctgacacc cccccagcc ccacagata acatcagctg aggtttttt cagatgaac ctgtcctaaa tcaattctc aaagtgtga caaaactaaa gaalataaat aaacaaga aggggaataa aaaaaaaa aaaa MWSCSWFNGT XLVEELXACQ DLQLGLSLLS LLGLVGVVPV GLCYNALLVL ANLSKASMT MPDVVYFNMA VAGLVLSALA PVHLLGPPSS RWALWSVGGE VHVALQIPFN VSSLVAMYST ALLSLDHYIE RALPRTYMAS VYNTRHVCGF VWGGALLTSF SLLFYICSH VSTRALECAK MQNAEADAT LVFIGYVVPV LATLYALVLL SRVRREDTPL DRDTGRLEPS AHRLLVATVC TQFGLWTPHY LILLGHTVII SRGKPVDAHY LGLLHFVKDF SKLLAFSSSF VTPLLRYMYN QSFPSKIQRL MKKLPCGDRH CSPDHMGVQQ VLA TCCGGAATAG TTCTAGACCG CTGCGGGCCG CCAGCGCGC GGAATGTCCC CTGAATGCGC GCGGCAGCG GCGACGCGC CTTGGCGAG CCTGGAGCAA GCCAACCGCA CCGGCTTCC CTTCTTCTCC GACGTCAAG GCGACCCAG GCTGTGCTG GCGCGGTGG AGACAACCGT GCTGTGCTC ATCTTTGAG TGTGCTGCT GGGCAACGTG TGCGCCCTGG TGCTGTGGC GCGCGACGA CGCGCGGCG CGACTGCTG CTTGTGCTT GGCCGTGCGC TGGACTGAGG GCTCTTCATC AGCGTATCC CTCTGTGCTT GGCCGTGCGC TGGACTGAGG CCTCCCTGCT GGGCCCCGTT GCGTGCCACC TGCTCTTCTA CGTGATGACC CTGAGCGGCA GCGTCACCAT CCTACGCTG GCGCGGTCA GCGTGGAGGG CATGTTGRC ATCGRGACC TGGAGCGGG CGTGCGGGT CCTCCGCGG GGCGCGGGC AGTGTGCTG GCSTCATCT GGGCTATTC GCGGTGCGC GCTGTGCTC TGTCGTCTT CTTTCGAGTC GTCCCGCAAC GGTCCCGCG CGCGAACAG GAAATTCGA TTTCACACT GATTGGGCC AGCATTCCTC GAGATCTC GTGGGATGC TCTTTTGTTA CTTTGAACCT CTTGGTGCCA GGACTGTCA TTGTGATCAG TTACTCCAAA ATTTACAGA TCACAAAGGC ATCAAGGAAG AGGCTACCG TAAGCTGGC CTACTCGGAG ACCCACCAG TCCGCGTGC CCAGCAGGAC TTCCGGCTCT TCCGCACCCT CTTCCTCCTC ATGCTCTCT TCTTCATCAT GTGGAGCCC ATCATCATCA CCATCCTCT CATCTGATC CAGAACTCA AGCAAGACT GGTATCTGG CCGTCCCTCT TCTTCTGGT GGTCCCTTC ACATTTGCTA ATTCAGCCCT AAACCCATC CTCTACACA TGACACTGTG CAGGAATGAG TGGAGAAGAAA TTTTGTGCTG CTTCTGTTT CCAGAAAAGG GAGCCATTT AACAGACACA TCTGTCAAAA GAAATGACTT GTCGATTAAT TCTGGCTAAT TTCTTTATA GCCGAGTTT TCACACCTGG CGAGCTGTG CATGCTTTA AACAGAGTTC ATTCCAGTA CCCTCCATCA GTGCACCCTG CTTAAGAAA ATGAACCTAT GCAAATAGAC ATCCACACG TCGGTAAAT AAGGGTGAT CACCAAGTTT CATAATATT TCCCTTTATA AAAGGATTTG TTGCCAGGT GCAGTGGTTC ATGCTGTAA</p>	P	Homo sapiens
681	194907	G Protein- Coupled Receptor 14273	LD22826	<p>ccctcgcgc ttacgctcc tcagcatca gttgtcaat gaagtga gaagctagag ccagttatcta tactttggg ttaaaatcact tgattccccc ttgtttgttt tacaataca gatgtttctt agaaaaatga caaatagtaa aatgaacaaa accctacgaa agaattggcaa cagcagggt ggccggggcc tgcagtggtg cgggtgtgc tagcaaggcc tgcgggtgtg tgcgcagctga ccacaggggt ctgagaacat ttacagaag tgcctgagac gggagagacat ggcgtgtgtt aatagggtgt attcaatagc agtgacgggc tctctcagc caccaaatgt cctgacacc cccccagcc ccacagata acatcagctg aggtttttt cagatgaac ctgtcctaaa tcaattctc aaagtgtga caaaactaaa gaalataaat aaacaaga aggggaataa aaaaaaaa aaaa MWSCSWFNGT XLVEELXACQ DLQLGLSLLS LLGLVGVVPV GLCYNALLVL ANLSKASMT MPDVVYFNMA VAGLVLSALA PVHLLGPPSS RWALWSVGGE VHVALQIPFN VSSLVAMYST ALLSLDHYIE RALPRTYMAS VYNTRHVCGF VWGGALLTSF SLLFYICSH VSTRALECAK MQNAEADAT LVFIGYVVPV LATLYALVLL SRVRREDTPL DRDTGRLEPS AHRLLVATVC TQFGLWTPHY LILLGHTVII SRGKPVDAHY LGLLHFVKDF SKLLAFSSSF VTPLLRYMYN QSFPSKIQRL MKKLPCGDRH CSPDHMGVQQ VLA TCCGGAATAG TTCTAGACCG CTGCGGGCCG CCAGCGCGC GGAATGTCCC CTGAATGCGC GCGGCAGCG GCGACGCGC CTTGGCGAG CCTGGAGCAA GCCAACCGCA CCGGCTTCC CTTCTTCTCC GACGTCAAG GCGACCCAG GCTGTGCTG GCGCGGTGG AGACAACCGT GCTGTGCTC ATCTTTGAG TGTGCTGCT GGGCAACGTG TGCGCCCTGG TGCTGTGGC GCGCGACGA CGCGCGGCG CGACTGCTG CTTGTGCTT GGCCGTGCGC TGGACTGAGG GCTCTTCATC AGCGTATCC CTCTGTGCTT GGCCGTGCGC TGGACTGAGG CCTCCCTGCT GGGCCCCGTT GCGTGCCACC TGCTCTTCTA CGTGATGACC CTGAGCGGCA GCGTCACCAT CCTACGCTG GCGCGGTCA GCGTGGAGGG CATGTTGRC ATCGRGACC TGGAGCGGG CGTGCGGGT CCTCCGCGG GGCGCGGGC AGTGTGCTG GCSTCATCT GGGCTATTC GCGGTGCGC GCTGTGCTC TGTCGTCTT CTTTCGAGTC GTCCCGCAAC GGTCCCGCG CGCGAACAG GAAATTCGA TTTCACACT GATTGGGCC AGCATTCCTC GAGATCTC GTGGGATGC TCTTTTGTTA CTTTGAACCT CTTGGTGCCA GGACTGTCA TTGTGATCAG TTACTCCAAA ATTTACAGA TCACAAAGGC ATCAAGGAAG AGGCTACCG TAAGCTGGC CTACTCGGAG ACCCACCAG TCCGCGTGC CCAGCAGGAC TTCCGGCTCT TCCGCACCCT CTTCCTCCTC ATGCTCTCT TCTTCATCAT GTGGAGCCC ATCATCATCA CCATCCTCT CATCTGATC CAGAACTCA AGCAAGACT GGTATCTGG CCGTCCCTCT TCTTCTGGT GGTCCCTTC ACATTTGCTA ATTCAGCCCT AAACCCATC CTCTACACA TGACACTGTG CAGGAATGAG TGGAGAAGAAA TTTTGTGCTG CTTCTGTTT CCAGAAAAGG GAGCCATTT AACAGACACA TCTGTCAAAA GAAATGACTT GTCGATTAAT TCTGGCTAAT TTCTTTATA GCCGAGTTT TCACACCTGG CGAGCTGTG CATGCTTTA AACAGAGTTC ATTCCAGTA CCCTCCATCA GTGCACCCTG CTTAAGAAA ATGAACCTAT GCAAATAGAC ATCCACACG TCGGTAAAT AAGGGTGAT CACCAAGTTT CATAATATT TCCCTTTATA AAAGGATTTG TTGCCAGGT GCAGTGGTTC ATGCTGTAA</p>	A	Homo sapiens

682	194907	G Protein-Coupled Receptor 14273	LR1116	<p>TCCCAGCAGT TTGGGCTGAG GTGGGTGGAT CACCTGAGGT CAGGAGTTGG AGACCAACCT GACCAACATG GTGAGACCCC CGTCTCTACT AAAAAATAAAA AAAAAAATTA GCTGGGAGTG GTGGTGGGCA CCTGTAATCC TAGTACTTGG GGAGGCTCAA CCACGAGAAT CTCCTGAACC TGGGAGGCAG AGGTTGCAGT GAGCCGAGAT CGTGCCATTG CACTCCAAACC AGGGCAACAA GAGTGAAACT CCATCTTAAA AAAAAAATAA AAGATTGTG TATGGGTCC TTTTAAATGT GAACTTTTT AGTGTTTGG TATATGATCA AATTTAATAA ATATTATTT ATGACTGTC AGCAAAAAA AAAAAAATAA AGGGCGG MSPECARAAG DAPLRLEQA NRTRFFESD VKGDHRLVLA AVETTVLVLI FAVSLGNVC ALVLVARRR RGATACLVLN LFCADLLFIS APLVLA VRW TEAWLLGPVA CHLLFYVMTL SGSVTILTL AVSLDRMVCI VMLQRGVRCR GRRARAVLLA LIWGYSAVAA LPLCVFFRVV PQRLLPGADQE ISICTLIWPT IPGEISWDVS FVTNLFVPG LVVISYSKI LQTTKASRKR LTVSLAYSR HQIRVSQQDF RLFRTLFLM VSFIMWSP I DITILLILQ NFKQDLVIWP SLPPWVVAPT FANSALNPIL YNMTLCRNEW KKIFCCTWFP EKGAILDTS VKRNDLSHS G ITYSAISDEL RDKVRFPALL RTTPSADHHV EAMVQMLMHF RWNWIVLVLS SDTYGRDNGQ LLGERVARRD ICIAFQETLP TLQPNQNMMS EERQLVTVV DKLQOSTAR VVVFSPDLTL YHFEVNLQ NFGAVVWIAS ESWAIDPVLH NLTELHLGT FLGITIQSV IPGFSEFREW GPQAGPPPLS RTSQSYTCNQ ECDNCLNATL SFNTILRSG ERVVYSVYSA VYAVAHALHS LLGCDKSTCT KRVVYPWQLL EEIWKVNFTL LDHQIFEDPQ GDVALHLEIV QWQWDRSQNP FQSVASYPL QRQLKNIKTS LHTVNNTPM SMCSCRQCSG QKKKPVGIHV CCFECIDCLP GTFLNHTCP NNEWSYQSET SCFKRQL VFL EWEAPTIAV ALLAALGFLS TLAILVIFWR HFQTPIVRSA GPMCFMLMT LLLVAYMVVP VYVGPVKVST CLCRQALFPL CFTICISIA VRSFQIVCAF KMASRFPFRAY SYWVRYQGPY VSMAFITVLK MVIVVIGMLA RPQSHPRDTP DDPKTIIVSC NPNYRNSLLF NTSLDLILLSV VGFSFAYMGK ELPTNYNEAK FITLSMTIFY TSSVSLCTFM SAYSGVL VTI VDILLVTVLNL LAISLGYFPG KCYMILFYPE RNTPAYFNMS IQGYTMRRD atgagcagca attcatccct gctgtgtgct gctgagcgt gctacgcgaa cgfgaalggg tctctgtgta aaatccctt ctgcgcgga tccgggta tctgtacat agtgttggc ttggggctg tctggcgtg gttggaaac ctctgtgta tgaattcaat ctccattc aagcagctg acitccgac caatttctc gtgccttc tggcctgcg tgaattctg gttgggtgta cttgtgccc cttcagcatg gtcaggacgg tggagagctg ctgtattt gggagaggti ttgtactt ccacaccgc tgtatgtgg catttgtia ctcttctc ttactgt gcttctc catgacagg tacattggg ttactgccc cctgtctat cctaccaagt tcaccgtac tgtgtcagga attgtatca gctgtctg gatctgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgggt ggaggaattt tctgtgccc taaactgt aggggtgt gctgtgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgtt tctctct tatacctacc ttattatga taatttgtia tggtaacata ttctgtgg ctgagcagca ggcgaaaaag alagaaaaa cttgtgtgcaa gacagaatca tctcagaga gttacaaagc cagatggccc aggaagagaga gaaaagcagc laaacccctg ggggtcacag tggtagcatt tatgattca tggtaaccat atagcatga ttcaattat gatgcttga tgggtctt aaacctgccc tgaattatg agattgtctg tgggtgtct taataataat cagccatgaa tctttgat tagtcttat ttaccatg gtttaggaaa gcaataaaag</p>	P	Homo sapiens
683	194908	G Protein-coupled Receptor Gpcrb4	LR1117	<p>ITYSAISDEL RDKVRFPALL RTTPSADHHV EAMVQMLMHF RWNWIVLVLS SDTYGRDNGQ LLGERVARRD ICIAFQETLP TLQPNQNMMS EERQLVTVV DKLQOSTAR VVVFSPDLTL YHFEVNLQ NFGAVVWIAS ESWAIDPVLH NLTELHLGT FLGITIQSV IPGFSEFREW GPQAGPPPLS RTSQSYTCNQ ECDNCLNATL SFNTILRSG ERVVYSVYSA VYAVAHALHS LLGCDKSTCT KRVVYPWQLL EEIWKVNFTL LDHQIFEDPQ GDVALHLEIV QWQWDRSQNP FQSVASYPL QRQLKNIKTS LHTVNNTPM SMCSCRQCSG QKKKPVGIHV CCFECIDCLP GTFLNHTCP NNEWSYQSET SCFKRQL VFL EWEAPTIAV ALLAALGFLS TLAILVIFWR HFQTPIVRSA GPMCFMLMT LLLVAYMVVP VYVGPVKVST CLCRQALFPL CFTICISIA VRSFQIVCAF KMASRFPFRAY SYWVRYQGPY VSMAFITVLK MVIVVIGMLA RPQSHPRDTP DDPKTIIVSC NPNYRNSLLF NTSLDLILLSV VGFSFAYMGK ELPTNYNEAK FITLSMTIFY TSSVSLCTFM SAYSGVL VTI VDILLVTVLNL LAISLGYFPG KCYMILFYPE RNTPAYFNMS IQGYTMRRD atgagcagca attcatccct gctgtgtgct gctgagcgt gctacgcgaa cgfgaalggg tctctgtgta aaatccctt ctgcgcgga tccgggta tctgtacat agtgttggc ttggggctg tctggcgtg gttggaaac ctctgtgta tgaattcaat ctccattc aagcagctg acitccgac caatttctc gtgccttc tggcctgcg tgaattctg gttgggtgta cttgtgccc cttcagcatg gtcaggacgg tggagagctg ctgtattt gggagaggti ttgtactt ccacaccgc tgtatgtgg catttgtia ctcttctc ttactgt gcttctc catgacagg tacattggg ttactgccc cctgtctat cctaccaagt tcaccgtac tgtgtcagga attgtatca gctgtctg gatctgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgggt ggaggaattt tctgtgccc taaactgt aggggtgt gctgtgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgtt tctctct tatacctacc ttattatga taatttgtia tggtaacata ttctgtgg ctgagcagca ggcgaaaaag alagaaaaa cttgtgtgcaa gacagaatca tctcagaga gttacaaagc cagatggccc aggaagagaga gaaaagcagc laaacccctg ggggtcacag tggtagcatt tatgattca tggtaaccat atagcatga ttcaattat gatgcttga tgggtctt aaacctgccc tgaattatg agattgtctg tgggtgtct taataataat cagccatgaa tctttgat tagtcttat ttaccatg gtttaggaaa gcaataaaag</p>	P	Homo sapiens
684	194957	Trace Amine Receptor 4 (TA4)	AF380192	<p>ITYSAISDEL RDKVRFPALL RTTPSADHHV EAMVQMLMHF RWNWIVLVLS SDTYGRDNGQ LLGERVARRD ICIAFQETLP TLQPNQNMMS EERQLVTVV DKLQOSTAR VVVFSPDLTL YHFEVNLQ NFGAVVWIAS ESWAIDPVLH NLTELHLGT FLGITIQSV IPGFSEFREW GPQAGPPPLS RTSQSYTCNQ ECDNCLNATL SFNTILRSG ERVVYSVYSA VYAVAHALHS LLGCDKSTCT KRVVYPWQLL EEIWKVNFTL LDHQIFEDPQ GDVALHLEIV QWQWDRSQNP FQSVASYPL QRQLKNIKTS LHTVNNTPM SMCSCRQCSG QKKKPVGIHV CCFECIDCLP GTFLNHTCP NNEWSYQSET SCFKRQL VFL EWEAPTIAV ALLAALGFLS TLAILVIFWR HFQTPIVRSA GPMCFMLMT LLLVAYMVVP VYVGPVKVST CLCRQALFPL CFTICISIA VRSFQIVCAF KMASRFPFRAY SYWVRYQGPY VSMAFITVLK MVIVVIGMLA RPQSHPRDTP DDPKTIIVSC NPNYRNSLLF NTSLDLILLSV VGFSFAYMGK ELPTNYNEAK FITLSMTIFY TSSVSLCTFM SAYSGVL VTI VDILLVTVLNL LAISLGYFPG KCYMILFYPE RNTPAYFNMS IQGYTMRRD atgagcagca attcatccct gctgtgtgct gctgagcgt gctacgcgaa cgfgaalggg tctctgtgta aaatccctt ctgcgcgga tccgggta tctgtacat agtgttggc ttggggctg tctggcgtg gttggaaac ctctgtgta tgaattcaat ctccattc aagcagctg acitccgac caatttctc gtgccttc tggcctgcg tgaattctg gttgggtgta cttgtgccc cttcagcatg gtcaggacgg tggagagctg ctgtattt gggagaggti ttgtactt ccacaccgc tgtatgtgg catttgtia ctcttctc ttactgt gcttctc catgacagg tacattggg ttactgccc cctgtctat cctaccaagt tcaccgtac tgtgtcagga attgtatca gctgtctg gatctgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgggt ggaggaattt tctgtgccc taaactgt aggggtgt gctgtgccc clatgtaca gctgtgtgtgt gtctacaca ggtgtgtg acgatgtt tctctct tatacctacc ttattatga taatttgtia tggtaacata ttctgtgg ctgagcagca ggcgaaaaag alagaaaaa cttgtgtgcaa gacagaatca tctcagaga gttacaaagc cagatggccc aggaagagaga gaaaagcagc laaacccctg ggggtcacag tggtagcatt tatgattca tggtaaccat atagcatga ttcaattat gatgcttga tgggtctt aaacctgccc tgaattatg agattgtctg tgggtgtct taataataat cagccatgaa tctttgat tagtcttat ttaccatg gtttaggaaa gcaataaaag</p>	A	Homo sapiens

685	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	<p>tattgtaac tggtcagggt ttaagaaca gttcagcaac calgaattgt ttcttgaac alataaa MSSNSSLLVA VQLCYANVNG SCVKIPSPG SRVILYIVFG FGAVLAVFGN LLVMISILHF KQLHSPTNFL VASLACADFL VGVTVMPFSM VRTVESCWFYF GRSFCIFHTC CDVAFCYSSL FHLCFISDR YIAVTDPLVY PKFTVSVSG ICISVSWILP LMYSGAVFYT GUYDDGLEEL SDALNCIGCG QTVVNQNWVL TDFLSFFIPT FMILYGNL FLVARRQAKK IENTGSKTES SSESYPKARVA RRERKAAKTL GVTVAFMIS WLPYSIDSLI DAFMGFITPA CIYEICWCWA YNSAMNPLI YALFYWFRK AIKVIVTGVV LKNSSATMNL FSEHI</p>	P	Homo sapiens
686	194958	Trace Amine Receptor 5 (TA5)	AF380193	<p>atgaccaga attttcca acctgttg cagcttggc atgaggatgt gaatggatct tgiattgaaa ctccattc tctgggtcc cgggtaatic tttacacgc gtttagctt tggctttgc tggctgtatt tggaaatctc ttgaaatga ctctgtct tcatthaaag cagctgcaat ctcaacaaa ttctcatl gccctctgg cctgtctga cttcttgga ggtgtgactg tgaacttt cagcaggic aggacgggtg agagctgctg gtaattgga gccaaattt giactctca cagtgctgt gatgtggcat ttgttactc ttctgtctc cacttgct tcatctcat cgacaggtaac atttggtta ctgacctt ggtctatgt accaagtca cgtgtctgt gtcgggaat tgcacagcg tgcctggat tctgctctc acgtacagcg gctgtgtgt ctacacaggt gtaaatgag atgggctgga ggaattagta agtctctca actgctagg tggctgtcaa atattgtaa acaacaagc ggtgtgata gattttctg tattctcat acctacctt gtaagataa ttcttacag taagatttt ctatagta acaacaagc tataaaat gaaactacta gtacacaagt agaalcalcc tcagagagt ataaatcac agtggccaaag agagagaga aagcagctaa aacctggggg gtcacggtaac tagcattgt tattcatgg tiaccgata cagtgtatg attaattgat gccctttag gctcttgac cctgtcctat atctatgaaa tttctgtg gtagtcttat tataactcag ccalgaatcc ttgatttat gctctatt atcttggt taggaaagcc ataaaactia tttaaggg agatgttta aaggctagt calcaacat tagttatt ttgaataa</p>	A	Homo sapiens
687	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	<p>MTSNFSQPVV QLCYEDVNGS CIETPSPGS RVILYTAFSF GSLLAVFGNL LVMTSVLHFK QLHSPTNFLI ASLACADFLV GVTVMLFMSV RTVESCWFYF AKFCTLHSCC DVAFCYSSVL HLCFICIDRY IVVTDPLVYA TKFTVSVSGI CISVSWILPL TYSGAVFYTG VNDDGLEELV SALNCVGGCQ IIVSQGWLI DFLFFIPTL VMILYSKIF LJAKQQAQKI ETTSSKVESS SESYKIRVAK RERKAAKTLG VTVLAFVISW LPYTVDLID AFMGELTPAY IYEICCW SAY YNSAMNPLIY ALFYWFRKA IKLILSGDVL KASSTISLF LE</p>	P	Homo sapiens
688	194989	MrgX4 G Protein-Coupled Receptor	AY042216	<p>tgcattgct tcttctgt ccatggatga ccagctctag tcacpactgt gtcacaacca cctcttggt tatctgaat cctccactg aaagaaaatt tcagaccacag gatagattaa tcatcgggtc caaagccctg gccggatgag tgggggtgt ttgatctaa tgtaatccc atgtacagcac agaacitgtg tggcagaga gtagatgac gcttcagagt caacaagaac tggattcaa actggattg aggacccca ccttggtaa gtagattat atctcgagc cctgttct cttctttaa aatgaggaca gtaaatccca tacggcaggg tgggggggag aatcagagat gatacagcig gtagacat cgtgtgtg ttccacgggg caccagacta gagtttctga gcatggatcc aaccgtcca gttctggga caaaactgac accaataac ggacgtgag agactcttg ctacaatcag acctgagct tcacggct gacgtgcalc atttccctg tggactgac aggaacgag gtagtctct ggctctggg ctaccgacg cgacggagac gttctocat ctacatctc aaactggcg cagcagacti ccttctc agctccaga ttacgttc gccattacg ctatcaata tcagccatct calccgcaaa atctcgtt ctgtgagac cttccctac ttacagggc tggatgtct gaggccalc agcaccgagc gctgcctgc tgtctgtg cccatctgt accgtgccc ccggccaca cactgtcag cgtgtgtg tgtctgtc tggggctgt cctgtgtgt tagtatgct gtagggaggt tctgtgacti cctgtttagt ggtgtgatt ctagtgtg tgaacgtca gattatcc cagtcgctg gctgattt ttatgtgtg tctgtgt ttccagccc gttctgtg tcagatct ctgtggatcc cgggaagatgc cgtgtgacg gctgtgag accatctgt</p>	A	Homo sapiens

689	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	<p> tccagtgct ggcttctc ctcggggc tgcctcgg cctctggg gcciaatt acaggatga cctgaattg gaagtctat atgtcatg tcttggtg tcatgtcc tgcctctc aaacagtagt gccaaaccca tcatctact ctcggggc tcttttagg agcgtcaaaa taggcagaac cigaagctgg tctccagag ggcctgcag gacaagcctg aggtggataa aggtgaagg cagcttcctg aggaagcct ggagctgag ggaagcagat tggggcctg agggagagcc tctgcccgt cagtcagag ggacttgag agcaacactg tctgcccac ctgacaatt acatgggt tcttaggt ttgcctcag aaatgctca gggtaact aagctctca aataaatgt tatcaact gacagctga gttitaccc atggaaagca ttatctgac agtiacaagt ttgg MDPTVPVFGT KLTPINGREE TPCYNQTL SF TVLTCTIISLV GLTGNVAVLV LLGYRMRRNA VSIYLNLA ADFLFLSFQI IRSPLRLINI SHLRKILVS VMTPYFTGL SMLSIAISTER CLSVLWPIWY RCRPRTHLSA VVCVLLWGLS LLFMSLEWRF CDFLFGADS SWCETSDFIP VAWLJFLCVV LCVSSLVLLV RILGSRKMP LTRLVVTILL TVLVFLCGL PFGILGALY RMHLNLEVLY CHVYLVCMSL SSLNSSANPI IYFFVGSFRQ RQNRQNLKLV LQRALQDKPE VDKGEGQLPE ESLESGSRL GP </p>	P	Homo sapiens
690	195015	G Protein- Coupled Receptor GPR82	AF411111	<p> atgaacaaca atacaacatg tattcaacca tctatgatc ctccatggc ttaccaalc attiatatcc tctttgtat tgttgtgt tttggaaaca cctctctca atggatatt ttacaacaaa taggiaaaaa aacatcaacg cacatctacc tgcacacct tgtgactgca aactacttg tgtgcagtc calgcttuc atgagtatct atttctgaa aggtttccaa tgggaatac aatctgctca atgcagagtg gtcaatttc tgggaactct atccatgcat gcaatgact acttcatgct ttgcatgct cttaattta agltggatg ccaataagccg ctatgctacc ttaatgcaaa aggaattctc gcaagagact acttcatgct atgagaaaat atttatggc cattactga aaaaattcg ccagcccaac tttgctagaa aactatgcat ttacatagg ggagtgtac tgggacaaat cattcagtt accgtatct actcagtcac agaggctaca gaaggagaag agagcctatg ctacaatcgg cagatgggaac tagggagccat gatctctcag attgcaggic tcatgggaac cacatttat ggatttctt tttagtact actaatca tactactct ttgtaggca tctgagaaaa ataagaacct gtacgtccat tatggagaaa gatttgactt acagtctgt gaaaagacat ctttggtca tccagattct actaatggt tgcctcttc ctatagtat ttttaaaccc attttatg ttctacacca aagagataac tgcagcaat tgaattatt aatagaaca aaaaacattc tcaactgct tgcctggcc agaagtagca cagaccccat tatattctt ttattagca aaacattca gaagacacta tataatctt tiacaagtc taaticagca cataatgcat cataatggtg a </p>	A	Homo sapiens
691	195015	G Protein- Coupled Receptor GPR82	AAL26482	<p> MNNNTTCIQP SMISSMALPI IYLLCIVGV FGNTLSQWIF LTKIGKKTST HIYLSHL VTA NLLVCSAMPF MSYFLKGFQ WEYQSAQCRV VNFLGTL SMH ASMFVSLLL SWAISRYAT LMQKDSSET TSCYEKIFYG HLLKKFRQPN FARKLCYIW GVVLGIIIPV TVYYSVIEAT EGEESLCYNR QMELGAMISQ IAGLIGTTFI GFSFLVVLTS YYSFVSHLRK IRTCTSIMEK DLTYSVVKRH LLVIQILLIV CFLPYSIFKP IFYVLHQRDN CQQLNYLIET KNIL TCLASA RSSTDPIIFL LLDKTFKKTL YNLFTKSNSA HMQSYG </p>	P	Homo sapiens

SEQ ID NO:	LSID	Gene	Source ID	Sequence	Code	Species Name
1	127	5-HT1A Receptor	NM_000524	atggaatgtgc tcagccctgg tcagggaac aacaccacat caccaccggc tccctttgag accggcgggca acactactgg tatctccgac gtgaccgtca gctaccaagt gatcacctct ctgctgctgg gcacgtctcat ctctgcgcg gtgctgggca atgcgtgcgt ggtggctgcc atcgccctgg agcgctccct gcagaacgtg gccaatatc ttattggctc ttggcggtc accgacctca tgggtgcggt gttggtgctg cccatggcgg cgctgtatca ggtgctcaac aagtggacac tgggccagggt aacctcgac ctgttcacg cctcgacgt gctgtgctgc acctcatcca tcttgacat gtgcgcatc gcgctggaca ggtactgggc catcacggac cccatcgact acgtgaacaa gaggacgcc cggccgctg cgctcatc gctcacttgg ctctattggct tctcatctc tatccggcc atccctgggt ggcgacccc ggaagaccgc tcggaccccc acgcatgcac cattagcaag gatcatggct acatatcta ttccaccttt ggagctttct acatcccgct gctgctcatg ctggttctct atggcgcat attccgagct gcgcgcttcc gcatccgcaa gacgtcaaa aggtggaga agaccggagc ggacaccgc catggagcat ctcccgccc gcagcccaag aagagtgtga atggagagtc ggggagcagg aactggaggc tggcggtgga gagcaaggct gggggtgctc tgtgcgcaa tggcgcggtg aggcaagggt acgatggcg cgccctggag gtgacgagg tgcaccgagt gggcaactcc aaagagcact tgcctctgcc cagcaggct ggtcctaccc ctgtgcccc cgctctttc gagaggaaaa atgagcgcaa cgccgaggc aagcgcaaga tggccctggc cggagagagg aagacagtga agacgtggg catcatcatg ggcacattca tctctgctg gctgccttc ttcatcgctg ctctgttct gccctctgc gagagcagct gccacatgcc caccctgtt ggcgccataa tcaattggct gggctactcc aactctctgc ttaaccccg catttacgca tacttcaaca aggactttca aaacgcgtt aagaagatca ttaagtgtaa ctctgcccgc cagtga	A	Homo sapiens
2	127	5-HT1A Receptor	NP_000515.1	MDVLSPGQN NTSPPAPFE TGGNTTGISD VTVSYQVITS LLLGTLI FCA VLGNACVVA IALERSIQNV ANYLIGSLAV TDLMSVLVL PMAALYQVLN KWTLGQVTC LFTALDVLCC TSSILHLCAI ALDRYWAITD PIDYVNRTP RPRALISLTW LIGELISPP ILGWRTPEDR SDPDCTISK DHGYTIYSTF GAFYIPLLM LVLYGRIFRA ARFRIRKTVK KVEKTGADTR HGASAPQPK KSVNGESGR NWRLGVESKA GGALCANGAV RQDDGGALE VIEVHRVNS KEHLPLPSEA GPTPCAPASF ERKNERNAEA KRKMALARER KTVKTLGIIM GTFILCWLPF FIVALVLPFC ESSCHMPTLL GAIINWLGYS NSLLNPVIYA YFNKDFQNAF KKIKNFCR Q	P	Homo sapiens
3	128	5-HT1B Receptor	NM_000863	atggaggaaac cgggtgtctca gtgcgctcca ccgcccgcgc cgggctccga gacctgggtt cctcaagcca acttatctc tgctccctcc caaaactgca gcgccaagga ctacatttac caggactcca tctccctacc ctgaaaagta ctgctgggta tgctattggc gctcatcac ttggccacca cgctctcca tgcctttgtg attgccacag tgaccggac ccggaactg cacaccggg ctaactacct gatgcctct ctggcggtca ccgacctgct tgtgtccatc ctggtgatgc ccatcagcac catgtacact gtcaaccggc gctggacact gggccagggtg gtctgtgact tctggctgtc tgcggacatc acttgttga ctgcctccat cctgcacctc tgtgtcatcg ccctggaccg ctactgggc atcaccggac ccgtggagta ctcagctaaa aggactccca agaggcggc ggtcatgac gcgctggtgt ggtcttctc catctctatc	A	Homo sapiens

5-HT1B
Receptor

128

4

Homo
sapiens

NP_000854.1

tcgtgcgcg cctttctctg gcgtcaggct aaggccgaag aggaggtgtc ggaatgcgtg
gtgaacacgg accacatcct ctacacggct tactccacgg tgggtgcttt ctacttcccc
accctgctcc tcatcgccct ctatggcgcg atctacgtag aagcccgctc cgggattttg
aaacagacgc ccaacaggac cggcaagcgc ttgacccggg ccagctgat aacgcactcc
tccgggtcca cgtctcgggt cactctatt aactcgcggg ttcccgcagt gccagcgaa
tccggtatct ctgtgtatgt gaaccaagtc aaagtgcgag tctccgcgcg cctgctggaa
aagaagaac tcatggcgcg tagggagcgc aaagccacca agaccctagg gatcatattg
ggagccttta ttgtgtgttg gctacccttc ttcatcatct ccttagtgat gcctatctgc
aaagatgcct gctgggtcca cctagccatc ttgacttct tcacatggct gggctatctc
aactccctca tcaaccccat aatctatacc atgtccaatg aggactttaa acaagcattc
cataaactga tacgttttaa gtgcacaagt tga
MEEPQAQCAP PPPAGSETWV PQANLSSAPS QNCSAKDYIY QDSISLPWKV LLVMLLALIT P
LATLSNAFV IATVYRTRKL HTPANYLIAS LAVTDLLVSI LVMPISIMYT VTGRWTLGQV
VCDFWLSSDI TCCTASILHL CVIALDRYWA ITDAVEYSAK RTPKRAAVMI ALVWVFSISI
SLPPFFWRQA KAEFEVSECV VNTDHLITYV YSTVGAFYFP TILLIALYGR IYVEARSRL
KQTPNRTGKR LTRAQLITDS PGSTSSVTSI NSRVDPVPE SGSPVYVNOV KVRVSDALLE
KKKIMAAER KATKTLGIIL GAFIVCWLPF FIISLVMPIC KDACWFHLAI FDFFTWLGYL
NSLINPIIYT MSNEFKQAF HKLIRFKCTS

5-HT1D
Receptor

129

5

Homo
sapiens

NP_000864

agccaaatgt gtggaggtct gtgggaagag agagccacct agcatgtccc cactgaacca A
gtcagcagaa ggccttcccc aggagccctc caacagatcc ctgaatgcca cagaacacctc
agaggttgg gatcccaaga cctccaggc gctcaagatc tccctgccc tggctcttc
cgtcatcaca ctggccacag tctctccaa tctctccaa cctgcccaca cgcactctt
caggagctc cacacccctg ccaactacct gattggctcc ctggcccaca cctggaactt
ggtttccatc ttggtaatgc ccatcagcat cgcctatacc atcaccaca cctggaactt
tggccaaatc ttgtgtgaca tctggctgtc ctctgacatc acgtgctgca cagcctccat
cctgcattctc ttgtgtcattg gcaacggcgc caccatgatc gccattgtct gggccatctc
cagtaaacgc aggaacggctg gcaacggcgc caccatgatc gccattgtct gggccatctc
catctgcac tccatcccc cgtctctctg gcggcaggcc aaggcccagg aggagatgtc
ggactgtctg gtgaacacct ctacagatct ctacacatc tactccacct gtggggcctt
ctacattccc tcggtgttgc tcatcatcct atatggccgg atctaccggg ctgcccggaa
ccgcatcctg aatccaccct cactctatgg gaagcgttc accacggccc acctcatcac
aggctctgcc gggctcctgc tctgctcgtc caactccagc tccatgagg ggcactgcga
ctcggctggc tccctctctc ttttcaacca cgtgaaatc aagcttgctg acagtgcctt
ggaacgcaa aggtattctc ctgctcgaga aaggaaagcc actaaaatcc tgggcatcat
tctgggggac tttatcatct gctggctgac ctctctctg gtgtctctg tctccccat
ctgcccggac tctgctgga tccacccgc cactgtgtt aatgaagat ttcggcaagc
tttaaacctc ccatcaatc caataatcta cactgtgtt aatgaagat ttcggcaagc
tttcagaaa atgtccctt tccggaagc cctcagctc tattcgatga ggtaaagaaa
MSPLNQSAEG LPQEAENRSL NATETSEAWD PRILQALKIS LAVVLSVITL ATVLSNAFV P
TTILLTRKLH TPANYLIGSL ATTDLLVSI LVMPISIAITI THTWNFGQIL CDWLSSDIT
CCTASILHLC VIALDRYWA TDALEYSKRR TAGHAATMIA IWAISICIS IPPLFWROAK

5-HT1D
Receptor

129

6

Homo
sapiens

NP_000855.1

7	130	5-HT1E Receptor	NM_000865	<p> AQEEMSDCLV NTSQISYTIY STCGAFYIPS VLLILLYGRI YRAARNRILN PPSLYGKRFT TAHLITGSAG SSLCSLNSSL HEGHSHSAGS PLFFNHVKIK LADSALERKR ISAARERKAT KILGIILGAF IICWLPFFV SLVLPICRDS CWIHPALFDF FTWLGYLNSL INPIIYTVFN EEFRQAFQKI VPERKAS atggaatggt gagagaagca gtgctctgat ccagctcagg agaaaaagga gcgggttccg agtgagactt ctggagccag ctggaactgc cgggtttgcc agtgcggcgc ggctgcacgc accgtccaca agagtctcag tcgcccaggc tggagtgcag cagcacagtc tcacctcatt gcaacctccg cctcccgggt tcgcgggttc tccgcctcag ctctcctagta gctgggattg caggcactca ccacatgcc cggctaattt ttgaaattt tagtgagac gggattttcac catgttgcc atgtgtgtct tgaaccccg accctggatg attgcgcgc ctcggcctcc caaagtgtg gaattacagg cgaaccttca ctcaagaagaa atgctgtggc cttcccttt accaaacagaa aatggaacac aagagaccac atagctgaac aaattatagc ctcttataa gtgagaaacc ttcgaggcta catagtttcc agccaaagga aaataaccaa cagcttctcc acagtgtaga ctgaacaag gaaacatga acatcacaaa ctgtaccaca gagccagca tggctataag acccaagacc atcactgaga agatgctcat ttgcatgact ctggtgtgca tcaccacct caccagttg ctgaaacttg ctgtgatcat ggctattggc acccaaga agctccacca gctgccaac tacctaattc gtctctggc cgtgacggac ctctgggtg cagtgtcgt catgcccctg agcatcatc acattgtcat ggatcgctgg aagcttgggt acttctctg tgaggtgtg ctgagtgtg acatgacctg ctgcacctg tccatctcc acctctgtg cattgccctg gacaggtact gggccatcac caatgctatt gaatacgcca ggaagaggac ggcaagagg gcgcgctga tgatcttacc cgtctggacc atctcattt tcatctocat gcccctctg ttctggagaa gccaccgccc cctaaagcct cccctagtc agtgcacct ccagcacgac catgttatct acaccattta ctccacgctg ggtcgtttt atatccctt gactttgata ctgattctct attaccggat ttaccacgcg gccaaagacc ttaccagaa aaggggatca agtcggcact taagcaacag aagcacagat agccagaatt ctttgcaag ttgtaaaact acacagactt tctgtgtgtc tgacttctcc acctcagacc ctaccacaga gttgaaaaa gtccatgctt ccccccctc gacaatgatc tagatcacc aggagaacgt cagcagatct tagcacccag ggaacggaa gacgacgca tctggggct gattctgggt gcattcattt tctcctggct gccatttttc atcaaaagat tgattgtgg tctgagcatc tacaccgtgt cctcggaagt gccgacttt ctgacgtggc tcggttatgt gaattctctg atcaacccctc tgctctatag gagttttaat gaagacttta agctggcttt taaaaagctc attagatgcc gagagcatat ttagactgta aaaagctaaa aggcacgact tttccagag cctcatgagt gtaggggggt aaggggtgca acttattaat tctgaaacat acttggttca ggagagtttg taagtatgtg tggctctgtt tctgtttg tttgtttgt ttgttctgt ttgtttgagg attgtattt ggcgtgctgt tttctacctc tggctttatc tgtgatacat aatttcaaat aaacattatc atacaaaaa aaaaaaaaa aaaaaaaaa </p>	Homo sapiens
8	130	5-HT1E Receptor	NP_000856.1	<p> MNITNCTTEA SMAIRPKTIT EKMLICMTLV VTTITLTLN LAVIMAIGTT KKLHQPNLYL P ICSLAVTDLL VAVLVMPLSI IYIVMDRWKL GYFLCEVWLS VDMTCCTCSI LHLCVIALDR YWAITNAIEY ARKRTAKRAA LMILTWTIS IFISMPLEFW RSHRLSPPP SQCTIQHDHV IYTIYSTLGA FYIPLTLILI LYRIYHAAK SLYQKRSSR HLSNRSTDSQ NSFASCKLTQ </p>	Homo sapiens

9	131	5-HT1F Receptor	NM_000866	<p>TFCVSDFTS DPTTEFEKPH ASIRIPFDN DLDPGERQQ ISSTRERKAA RILGLILGAF ILSWLPFFIK ELIVGLSIYT VSSEVADFLT WLGYNLSLIN PLYTSFNEK FKLAFKKLIR CREHT</p> <p>atggatttct taaattcatc tgatcaaaaac ttgacctcag aggaactgtt aaacagaaatg A ccatccaaaa ttctgtgtc cctcactctg tctgggctgg cactgatgac acaactatc aactcccttg tgatcgctgc aattattgtg acccggaagc tgacacatcc agccaattat ttaatttgtt ccttgccagt cacagatttt cttgtggctg tcttggtgat gcccttcagc attgtgtata ttgtgagaga gagctggatt atggggcgaag tggctctgtga catttggctg agtgttgaca ttacctgtcg cacgtgctcc atcttgcac tctcagctat agctttggat cggtatcgag caatcacaga tgctgttgag tatgccagga aaaggactcc aaagcatgct ggcattatga ttacaatagt ttggattata tctgttttta tctctatgcc tctctattc tggaggcacc aaggaaactag cagagatgat gaatgcata tcaagcacga ccacattgtt tccaccattt actcaacatt tggagctttc tacatcccac tggcattgat ttgatccctt tactacaaaa tatatagagc agcaaaagaca ttataccaca agagacaagc aagtaggatt gcaaaaggagg agtggaatgg ccaagtccct ttggagagtg gtgagaaaaa cactaaatca gtttccacat cctatgtact agaaaagtct ttatctgacc catcaacaga ctttgataaa attcatagca cagtgagaag tctcaggtct gaattcaagc atgagaaatc ttggagaagg caaaagatct caggtacaag agaacgaaa gcagccacta cctgggatt aatcttgggt gcatttgtaa tatgttggct tctttttttt gtaaaaagaat tagttgttaa tgtctgtgac aaatgtaaaa ttctgagaag aatgtccaat tttttggcat ggcttgggta tctcaattcc cttataaatc cactgattta cacaatcttt aatgaagact tcaagaaaagc attccaaaag cttgtgcgat gtcgatgtta g</p>	Homo sapiens
10	131	5-HT1F Receptor	NP_000857.1	<p>MDFNSSDQN LTSELLNRM PSKILVSLTL SGLALMTTII NSLVIAAIV TRKLHPANY P LICSLATDF LVAVLMPFS IVYIVRESWI MGQVCDIWL SVDITCCTCS ILHLSAIALD RYRAITDAVE YARKRTPKHA GIMITIVWII SVFISMPPLF WRHQGTSRDD ECIKHDHIV STIYSTFGAF YIPLALILIL YKIIYRAAKT LYHKRQASRI AKEEVNGQVL LESGEKSTKS VSTSYVLEKS LSDPSTDFDK IHSTVRSILRS EFKHEKSWRR QKISGTRERK AATTLGLILG AFVICWLPFF VKELVNVCD KCKISEMSN FLAWLGYLNS LINPLIYTIF NEDFKKAFQK LVRRC</p>	Homo sapiens
11	132	5-HT2A Receptor	NM_000621	<p>gaattcgggt gagccagctc cgggagaaca gcatgtacac cagcctcagt gttacagagt A gtgggtacat caagtgat caagtgat aactataacc tgtagtacct tctacacctc atctgtcata agttctggt tagacatgga tattctttgt gaagaaaata cttctttgag ctcaactacg aactccctaa tgcaattaaa tgatgacacc aggcctaca gtaatgactt taactctbga gaagctaaca cttctgtatgc atttaactgg acagtctac ctgaaaaatcg aaccacactt tctgtgaaag ggtgcctctc accgtctgtg cctccttac tteatctcca ggaaaaaaac tggctctgctt tactgacagc cgtagtgtatt attctaacta ttgctggaaa catactctgc atcatggcag tgtccctaga gaaaaagctg cagaatgcca ccaactattt cctgatgtca cttgccatag ctgatatgct gctgggtttc cttgtcatgc cgtgtccat gttaaccatc ctgtatgggt accggtggcc tctgcccagc aagctttgtg cagtctggat ttacctggac gtgctcttct ccaaggcctc catcatgcac ctctgcgcca tctcgtgga ccgtacgtc gccatccaga atccccatcca ccaagccgcg ttcaactcca gaactaaggc</p>	Homo sapiens

atttctgaaa atcattgctg ttggaccat atcagtaggt atatccatgc caataccagt
 ctttgggcta caggacgatt cgaaggtctt taaggagggg agttgcttac tcgccgatga
 taactttgtc ctgacggct cttttgtgc atttttcatt cccttaacca tcatggtgat
 cactacttt ctaactatca agtcaactcca gaaagaagct actttgtgtg taagtgatct
 tggcacacgg gccaaattag cttcttcag gccagggtcc tacacaggca ggaggactat
 aaagctcttc cagcgtcga tccataggga caaggtgctg gccatcgtct tcttctgtt
 gcagtcacac agcaatgagc aaaggcagc aaacatcatg gccgtcatct gcaaaagatc
 tgtggtgatg tgggtgacct tcttcacac caatgtgttt gtttgatcg gttatctctc
 ctgcaatgag gatgtcattg gggccctgct caatgtgttt gtttgatcg gttatctctc
 ttcagcagtc aaccactag tctacacact gttcaacaag acctataggt cagccttttc
 acggtatatt cagtgtcagt acaaggaaaa caaaaaacca ttgcagttaa ttttagtgaa
 cacaataccg gctttggcct caaagctcag ccaactcaa atgggacaaa aaagaattc
 aaagcaagat gccaaagaca cagataatga ctgctcaatg ttgctctag gaaagcagca
 ttctgaagag gcttctaaag caaatagcga cggagtgaat gaaaaggtag gctgtgtgtg
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 aaaaaaaat atgagattgg aaaaaattag acaagctcag tggaaaccaac gatcatatct
 gtatgctca ttttattctg tcaatgaaa gcgggggttca atgtacaaa atgtgtgctt
 ggaaatggt ctgacagcat ttacagctgt agctttctga tacttattta taacattgta
 aatgatatgt ctttaaaatg attcactttt attgtataat tatgaagccc taagtaaatc
 taaattaact tctattttca agtggaacc ttgctgctat gctgttctat gatgacatgg
 gattgagttg gttacattt gccgtaaaata aaaaatagcta taaatagtag aaattttat
 gaataaatg gcctctaaa aattatctt aaaaacttact atggtatata tttgaaagg
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 aggtgcagt gagccaaagt cacaccactg cctttcctc ctgggcaaca gagtgaacc
 ctaccacc gaattc

12 132

NP_000612.1
5-HT2A
Receptor
 MDILCEINTS LSSTNSLMQ LNDDTRLYSN DFNSGEANTS DAFNWTVDSE NRTNLSCEGC P
 LSPSCLSLH LQEKWSALL TAVVILITIA GNILVIMAVS LEKKLQATN YFLMSLAID
Homo
sapiens

13	5-HT2B Receptor	NM_000867	<p>MLLGFLVMPV SMLTILGYR WPLPSKLCV WIYLDVLFST ASIMHLCAIS LDRYVAIQNP IHHSRFSNRT KAFLKIIVW TISVGISMPI PVFGLQDDSK VFKEGSCLLA DDNFVLIGSF VSFFIPLTIM VITYFLTIS LQKEATLCVS DLGTRAKLAS FSFLPQSSLS SEKLFQRSIH REPGSYTGRR TMOQISNEQK ACKVLGIVFF LFVVMWCPFF ITNIMAVICK ESCNEDVIGA LINVFWIGY LSSAVNPLVY TLFNKTYRSA FSRYIQCYK ENKKPLQLIL VNTIPALAYK SSQLQMGQKK NSKQDAKTTD NDCSMVALGK QHSEASKDN SDGVNEKVSC V</p> <p>tactaaccat gctgaccact gttcggaacg ggattgaatc acagaaaaac agcaaatggc A tctctcttac agagtgtctg aacttcaaaag cacaattcct gagcacattt tgcagagcac ctttgttcac gttatctctt ctaactggtc tggattacag acagaaatcaa taccagagga aatgaaacag attgttgagg aacagggaag taaactgcac tgggcagctc tctgatact catggtgata ataccacaaa ttggtggaaa tacccttggt attctggctg tttcactgga gaagaagctg cagtagtcta ctaattactt tctaattgct tggcgggtgg ctgatttgc ggttggattg ttgtgatgc caattggcct attgacaata atgtttgagg ctatgtggcc cctcccactt gttctatgct ctgcttggtt atttcttgac gttctctttt caaccgcac catcatgcat ctctgtgcca ttctcagtgga tcgttacata gccatcaaaa agccaatcca ggccaatcaa tataactcac gggctacagc attcatcaag attacagtgg tggcgttaaat ttcaataggc attgccattc cagtccttat taaagggata gagactgatg tggacaacccc aaacaatatc acttgtgtgc tgacaaagga acgttttggc gatttcacgc tctttggctc actggctgcc ttcttcacac ctcttgcaat tatgattgtc acctacttct tcaatatcca tgctttacag aagaaggctt acttagtcaa aaacaagcca cctcaacgcc taacatggtt gactgtgtct acagttttcc aaagggatga aacacctgc tgcacccgg aaaggtggc aatgctggat ggttctcgaa aggacaagc tctgcccaac tcaggtgatg aaacacttat gcgaagaaca tccacaattg ggaagaagtc agtcagagcc atttccacg aacagagagc ctcaaaagtc ctagggattg tgtttttctt ctttttgctt atgtgtgtc ccttctttat tacaataata actttagttt tatgtgattc ctgtaaccaa actactctcc aaatgctcct ggagatatct gtgtggatag gctatgttcc ctgagagatg aatcctttgg tctacacccct cttcaataag acatttcggg atgcatttgg ccgatatatc acctgcaatt accgggcccac aaagtcagta aaaactctca gaaacgctc cagtaagatc tacttccgga atccaatggc agagaactct agttttttca agaaacatgg aattcgaaat gggattaaac ctgccatgta ccagagtcca atgaggctcc gaagttcaac cattcagctc tcatcaatca tctactaga tacgcttctc ctcaactgaa atgaaggatga caaaactgaa gagcaagta gttatgtata gcagaactgg cagttgtcat caaacataat gatgagtaag atgatgaatg agatgtaaat gtgcccagaa tatattatat aaagaatttt atgtcatata tcaaatcatc tcttaacct aagatgtaag tattaagaat atctaatttt cctaatttgg acaagattat tccatgagga aaataatttt atatagctac aaatgaaaac aatccagcac tctggttaaa ttttaagga ttcgaatgaa ataaagtcaa atcaataaat ttcaggcttt aaaaaaaa</p>	Homo sapiens
14	5-HT2B Receptor	NP_000858.1	<p>MALSYRVSEL QSTIPEHILQ STFVHVSSN WSLQTESIP EEMKQIVVEQ GNKLHWAALL P ILMVIPTIG GNTLVILAVS LEKKLOYATN YFLMSLAVAD LLVGLFVMPI ALLTIMFEAM WPLPLVLCPA WLFLDLVLFST ASIMHLCAIS VDRYIAIKKP IQANQYNSRA TAFIKITVW LISIGIAIPV PIKGIETDND NPNNITCVLT KERFGDFMLF GSIAAFFTPL AIMIVTYFLT IHALQKKAYL VKNKPPQRLT WLTVSTVFQR DETPCSSPEK VAMLDGSRKD KALPNSGDET</p>	Homo sapiens

15 134 5-HT2C
Receptor

nm_000868

A

Homo
sapiens

IMRRTSTIGK KSVQTISNEQ RASKVLGIVF FLFLLMWCPF FITNITLVLC DSCNQTTLQM
 LLEIFWIGY VSSGVNPLVY TLFNKTFRDA FGRIYTCNRYR ATKSVKTLRK RSSKIYFRNP
 MAENSKFEKK HGIRNGINPA MYQSPMLRS STIQSSSIIL LDLLLLTENE GDKTEEQVSY
 V
 accgcgcgca ggtaggcgct ctggtgcttg cggaggacgc ttccttcctc agatgcaccg
 atcttcccgga tactgccttt ggagcgcta gattgctagc cttggctgct ccattggcct
 gccttgcccc ttacctgccc attgcataag aactcttctt ctgtctgtac atcgcttgctg
 tcggagtcgt cgcgategtc gtggcgctcg tgtgatggcc ttcgtccgtt tagagtagtg
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aattctcttc ctttgtcaaa tggatttttt ttggaatggt tgcaaatgtt tgtcttattc

16	134	5-HT2C Receptor	NP_000859.1	ctaatctctg tatgttatcc actacaggtt ttatgagact tcctattaat ttattaaatt tattaaatgt tgaataaaaa aaaaaaaaaa aaaa MVNLRNAVHS FIVHLIGLIV WQCDISVSPV AAIVTDIENT SDGGRFKFPD GVQNPALSI P VIIIIMTIGG NILVIMAVSM EKLNHATNY FLMSLAIDM LVGLLVMPLS LLAILYDYVW PLPRYLCPW ISLDVLFSTA SIMHLCAISL DRYVAIRNPI EHSRENSRK AIMKIAIWA ISIGSVPIPI VIGLRDEKV FVNNTCVLN DPNFVLIGSF VAFFILTIM VITYCLTIYV LRRQALMLLH GHTEEPPLS LDFLKCKRN TAEENSANP NQDNARRRK KKERRPRGTM QAINNERKAS KVLGIVFFVF LIMWCPFFIT NILSVLCEKS CNQKLMKLL NVFVWIGYVC SGINPLVYTL FNKIYRRAFS NYLRCNYKVE KKPPVRQIPR VAATALS GRE LNVNIYRHTN EPVIEKASDN EPGIEMQVEN LELPVPSSV VSERISSV	Homo sapiens
17	136	5-HT4 Receptor	NM_000870	cgggtgcttat ttcctgtaat ggacaaactt gatgctaagt tgagttctga ggagggttct A gggtcagtgga agaaggtggt gctgctcaag. ttctctctga cggttatcct gatggccatc ttggggaaacc tgctggtgat tgctggctgtg tgctgggaca ggcagctcag gaaaaataaaa acaaattatt tcattgtatc tcttgctttt gcggtatctgc tggttctggt gctggtgatg ccctttggtg ccattgagct ggttcaagac atctgattt atggggaggt gttttgtctt gttcggacat ctctggacgt cctgctcaca acggcatcga tttttcacct gtgctgcatt tctctggata ggtattacgc catctgctgc cagcctttgg tctataggaa caagatgacc cctctgcgca tcgcattaat gctgggaggg tgctgggtca tccccacgtt tatctctttt ctccctataa tgcaaggctg gaataacatt ggcataattg atttgataga aaagaggaaag ttcaaccaga actctaactc tacgtactgt gtcttcattg tcaacaagcc ctacgccatc acctgctctg tgggtgcctt ctacatccca tttctcctca tgggtgctggc ctattaccgc atctatgtca cagctaagga gcattgcccac cagatccaga tgttacaacg ggcaggagcc tctctccaga gcaggcctca gtccgcagac cagcatagca ctcctgcctat gaggacagag accaaaagcag ccaagacctt gtgcatactc atgggttgcct tctgctctg ctggggacca tcttttgtca ccaatattgt ggatccttcc atagactaca ctgtccctgg gcagggtgtg actgctttcc tctggctcgg ctatatcaat tccgggttga acccttttct ctacgccttc ttgaataagt cttttagacg tgccttctc atcatcctct gctgtgatga tgagcgtac cgaagacctt ccattctggg ccagactgtc ccttgttcaa ccacaacct taatggatcc acacatgtac taaggatgc agtgagtggt gggtggccagt gggagagtca gtgtcacccg ccagcaactt ctcttttggg gctgctcag ccagtgaca cttaggcccc tgggacaatg accagaaga cagccatgcc tccgaaagag gccaggtcc taagctgctg cttgtgctg actgcacccg gcattctctt cactgagggc ttctcgtccg caagtgcagg aaccgggtgc tcgctggg	Homo sapiens
18	136	5-HT4 Receptor	NP_000861.1	MDKLDANVSS EEGFGSVEKV VLLTFLSTVI LMAILGNLIV MVAVCWDRQL RKIKNYFIV P SLAFADLLVS VLVMPFGAIE LVQDIWIYGE VFCLVRTSLD VLLTASIFH LCCISLDRY AICCOPLVYR NKMTPLRIAL MLGGCWVPT FISFLPIMQG WNNIGIIDLI EKRFNQNSN STYCVFMVVK PYAITCSVA FYIPFLMVL AYYRIYVTA EHAHQIOMLQ RAGASERSR QSADQSTHR MRTETKAAT LCIMGCFCL CWAPFFVNI VDPFIDYTP GQVWTAFLWL GYNSGLNPF LYAFLNKSR RAFLIILCCD DERYRRPSIL GQTVPCSTTT INGTHVLRD AVECGGQWES QCHPPATSPL VAAQPSDT	Homo sapiens
19	138	5-HT6	NM_000871	cccagagcg cccattcacc cccctcacc accctcccg gttccactt ccccgactc A gttccactt	Homo

Receptor	NP_000862.1	5-HT6 Receptor	138	20	<p> tgaccggcc ggacggccct ccctatctt gccggccgccc cctccaggg ggctctgctc ccaccagg gagcccatcc gacctctgt tgacttccc gcttctctt caggggcctc ggctcagg gtgcccctcc ccaacttcc aaccgtttg ctccaggagt tctgcccc tccccagg gcgccaata gccacactgt gctctctgt agtcgcgccc cctgaccta gcgagacca ggcggccgccc ccatgtccc cactcaact cccccgggg gcgtggtgag tcggtgtctg ttctcaggga cgggtcccgt cagcctgag cttgcgcggg gcctcatct gcttccgccc cactctatca cttccctgccc gtcacccctc ggtcctcatg gtcacagagc cgggcccac cgccaatagc acccggcct ggggggcagg gccgcctgccc gccggggggg gcagcggctg ggtggggccc gcgtgtgag tggctatcgc gctgacggcg gcggccact cgctgtgat cgcgtctatc tgcactcagc ccgcgtgag caacacgtcc aacttctcc tgggtgctgt cttcactgtt gacctgatgg tggggtggt ggtgatgccc cgggccatgc tgaacgcgct gtacgggccc gctgtgctgg cgcggggcct ctgctgctc tggaccgct tcgacgtgat gtgctgcagc gcctccatcc agtcgctaca gacgccccg cgtgccccg acctgtcat cctctgcgccc agctcgccc cctgcctcgc cttcctgccc cgtgctggtg cctagtctt ggggcctgg gctgaggcc cgttccctt cctgccccg ggtgccatat gctggcacga gctggggccc tgccttctg gctgaggcc cgttccctt ggtgccatat gctgctctt tgccttctg gctgaggcc cgttccctt cctgccccg ggtgccatat gcttccacta ctgacggatc ctgctagctg cccgcaagca ggcgtgagc gtggcctccc tcaccacgg catggccagt caggcctcgg agacgtgca ggtgcccagg accccagccc cagggttgga gtctgctgac agcaggcgtc tagccacgaa gtcacactg tggcctctt aggcagcct gacgtggc atcctgctg gctgctgag actgcatct cccaggcctc ttcgatgctc ttgtggccaa catagtccag gctgctgag tgaaccccat cactaccca ccttctatgc tcacatggct ggttactgt aacagcaca ggcaggttcc tgccatgccc cgggagcggc gggactcaa ggcgtgctg ggcaggttcc tgccatgccc cggcctcctt cccggcctta aggcagcct ggcctgccc tcaactgcga cctctcacag cggccccgg cccggcctta gctacagca ggtgctgccc ctgcccctgc cgcgggactc agattcgac tcagacgcag gctcaggcg cctcctgggc ctgcccctca cggcccagct gctgcttct ggcgagccca cccaggacc cccgctgccc accaggccc ctgcccctgc caatttctc aacatcgacc ccgaggagcc cgagctgccc cgcctccac ttggcatccc caggaactga cccgggcttg ggcctggcca atggggagct ggattgagca gaacccagac cctgagctct tgggccagct cttggctaag accaggaggc tgcaagtctc ctagaagccc cctgagctcc agagggtgc gcagagctga cccctgctg ccatctccag gcccttacc tgcagggatc atagctgact caga NP_000862.1 MVPEPGPTAN STPAWAGAPP SAPGGSGWA AALCVVIALT AAANSLIAL ICTQPALRNT P SNFFLVSLFT SDLMVGLVVM PPAMLNALYG RNVLARGLCL LWTAFDMCC SASILNCLLI SLDRYLLILS PLRYKLRTMP LRALALVGA WSLAALASFL PLLGWHELH HARPPVPGQC RLLASLPFVL VASGLTFFLP SGAICFTYCR ILLARKQAV QVASLTGMA SQASSETIQVP RTPRPGVESA DSRRLATKHS RKALKASLTL GILLGMEFVT WLPFFVANIV QAVCDICSPG LFDVLTWLG CNSTNPIIY PLFMRDEKRA LGRLFCPRC PRERQASLAS PSLRTSHSGP RPLSLQQLV PLPLPDSDS DSDAGSGSS GLRLTAQLLL PGEATQDPPL PTRAAAVNF FNIDPAEPEL RPHPLGIPTN </p>	<p>sapiens</p> <p>Homo sapiens</p>
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21	139	5-HT7 Receptor	NM_000872	ccatgggag cggcacacgg cggcgagatg atggacgtta acagcagcgg ccgcccggac A ctctacgggc acctccgctc ttctctcttg ccagaaagtgg ggcgagggtg gcccgacttg agccccgag gtggcgcca ccggtcgcg gctctctggg cgccgcacct gctgagcgag gtgacagcca gccggcgcc cactgggac ggcggcgccg acaatgcctc cggctgtggg gaacagatca actacggcag agtcagaaa gtgtgatcg gctccatcct gacgctcatc acgtgtcta cgatcggg caactgcctg gtgtgatct ccgtgtgctt cgtcaagaag ctccggcag cctccaaata cctgacgtg tccctggcg tggcgacct ctcggtggct gtggcggtca tgcctctcgt cagctcacc gacctcatcg ggggcaagtg gatcttttga cacttttct gtaatgtctt catcgccatg gacgtcatgt gctgcacggc ctcgacatg acctgtgag tgatcagcat tgacaggtac cttgggatca caaggccct cactacccct gtgaggcaga atgggaaatg catggcgaag atgattctct ccgtctggct tctctccgcc tccatcacct tacctccact cttgggatg gctcagaatg taaatgata taaggtgtgc ttgatcagcc aggaacttgg ctatacgatt tactctaccg cagtggcatt ttatatcccc atgtccgtca tgccttttcat gtactaccag atttacaagg ctgccaggaa gagtgtgccc aaacacaagt ttcttggtt cctcgagtg gagccagaca cgtcatcgc cctgaatggc atagtgaag tccagaagg ggtggaagag tgtgcaaac ttctgagact cctcaagcat gaaaggaaa acatctccat ctttaagcga gaacagaaag cagccaccac cctggggatc atcgtcgggg cctttaccgt gtgctggctg ccatttttcc tctctcgac agccagaccc ttcatctgtg gcaactctcg cagctgcat ccaactgtggg tggagaggac attctgttgg ctaggctatg caaactctct cattaacctt ttatatatg ccttcttcaa ccgggacctg aggaccacct atgcagcct gctccagtc cagtaccgga atatcaaccg gaagctctca gctgcaggca tgcataagc cctgaagctt gctgagaggc cagagagacc tgagtgtgtg ctacaaaatg ctgactactg tagaaaaaa ggtcatgatt catgattgaa agcagaacaa tgagag	Homo sapiens
22	139	5-HT7 Receptor	NP_000863.1	MDVNSSGRP DLYGHLRSFL LPEVGRGLPD LSPDGGADPV AGSWAPHLLS EVTASAPTW P DAPDNASGC GEQINYGRIE KVVIGSILT ITLTIAGNC LVVISVCFVK KLRQPSNYLI VSLALADLSV AVAMPFVSU TDLIGGKWF GHFFCNVFA MDVMCCTASI MTLCVISIDR YLGITRPLTY PVRQNGKMA KMILSVWLLS ASITLPPPLFG WAQNVNDDKV CLISQDFGYT IYSTAVAFYI PMSVLMFYI QIYKAARKSA AKHKEFGFPR VEPDSVIALN GIVKLQKEVE ECANLSRLK HERKNISIFK REQKAATLG IIVGAFVTCW LPFFLLSTAR PFICGTSCSC IPLWVERTFL WLGYANSLIN PFYIAFFNRD LRTYRSLLQ CQYRNINRKL SAAGMHEALK LAERPERPEF VLQADYCRK KGHDS	Homo sapiens
23	272	Adenosine A1 Receptor	NM_000674	atgagtgatca gaagtgtgaa ggtgctctgt tctgaatccc agagcctcct ctcctctgt A gaggtcgga ggtgaggaag ggtttaacct cactggaagg aatccctgga gtagcggt gtggaaggcg tcgaggtgtg gggcacttg ggcagacttg gacagaacag tcaggcagcc gtagctctg ccagctttgg tgaccttggg ccgggctgg agcgtcggg cggagacgg aggactatga gctgcggcg gtgtccaga gcccgccca gccctacgag ccggggccgg agctctgtt cctgggaactt tgggcactgc ctctgggacc cctgcccggc agcaggcagg atggtgttg cctcgtgccc cttggtgccc gtctgctgat gtgcccagcc tgtgcccgc atgcgcct ccatctcagc ttccaggcc gctacatcg gcatcgaggt gctcatcgcc ctggtctctg tgccccggaa cgtgctggtg atctggcgcg tgaaggatgaa ccaggcgctg cgggatgcca	Homo sapiens

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 accgctacct cgggtcaag atccctctcc ggtacaagt ggtgtgacc ccccgaggg
 cggcgtggc catagccggc tgtgtgacc tctctctgt ggtggactg accctatgt
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 cctcagctg gctgcctttg cacatcctca actgcatac cctcttctgc cgtcctgccc
 acaagcccgag catccttacc tacattgcca tcttctccac gcacggcaac tcggccatga
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 agcccttccc tctgttgaa attgggtgtg cctgggctcc caaggagggc ccatgtgact
 aataaaaaac tgtgaacctt

Homo

Adenosine A1 NP_000665.1 MPPSISAFQA AYIGIEVLIA LVSVPGNVLV IWAVKVQNAL RDATFCFIVS LAVADVAVGA P

26	Adenosine A2a Receptor	NP_000666.2	MPIMSSVYI TVELAIAVLA ILGNVLVCWA VMLNSNLQNV TNYFWVSLAA ADIAVGVLAIP	Homo sapiens
273			PFATISTGF CAACHGCLFI ACFLVLVTQS SIFSLIAIAI DRYIAIRIPL RYNGLVGTGR	
			AKGIIAICWV LSFAIGLTPM LGWNNGQPK EGKNSQCG EGQVACLFED VVPMNMYVF	
			NEFFACVLVPL LMLGVLYLRI FLAARRQLKQ MESQPLPGER ARSTLQKEVH AAKSLAIIVG	
			LFALCWLP LH IINCFTFCP DCSHAPLWLM YLAIVLSHTN SVNPFYIY RIREFRQIFR	
			KIIRSHVLRQ QEPFKAAGTS ARVLAHAGSD GEQVSLRLNG HPPGVWANGS APHPERRPNG	
			YALGLVSGS AQESQGNLGL PDVELLSHEL KGVCPEPPGL DDPLAQDGAG VS	
274	Adenosine A2b Receptor	NM_000676	gggcaatttg ttagttatcc gccgccacca agacgcggca cggcgccctgg accggagggg A	Homo sapiens
			ccccgcgcgc cgggggccc ggcggaactt tgggctcggg cgagtgggtg gtgctccgcc cagccccgaga	
			cgggcgggcg cgcgggccc cgcgggccc tgggtgccgc cttctggccg cggggggccc cgaccctgg	
			gtcccggcca ccagcgcgc cgcgggccc agccccgag ctcagaagcg gcaggcggag gcgcggtcg	
			ggcgctatgg ccattgccc ccatgcccgc cgggtctcac gcggctgcc ctcgcccgc gcgccttcgg	
			tagggggcgc cgggggccc gctggcccgc ccatgctgct ggagacacag gacgcgctgt	
			acgtggcgct ggagctggtc atcgccgcgc ttctcggtgc ggccaacgtg ctggtgtgcg	
			cgcgggtggg cagggcgaa cactctgcga cggccacca ctacttctg gtgtccctgg	
			ctgcggccga cgtggccgtg gggtctctcg ccattccctt tgccatcacc atcagccctgg	
			gcttctgcac tgacttctac ggctgcctct tcctcgccctg ctctgtgctg gtgctcacgc	
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			ccaccaacaa ctgcacagaa ccttgggatg gaaccacgaa tgaaagctgc tgccttgtga	
			agtgtctctt tgagaaatgtg gtccccatga gctacatggt atatttcaat ttctttgggt	
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			tccatgcagc caagtcaactg gccatgattg tggggatttt tgccctgtgc tgggttacctg	
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			gggcaatgaa tatggccatt cttctgtcac atgccaattc agttgtcaat cccattgtct	
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			tctgccaaagc agatgtcaag agtgggaatg gtcagctgg ggtacagcct gctctcggtg	
			tgggcctatg atctaggctc tcgcctcttc caggagaaga tacaatatcca caagaacaa	
			agaggacacg gctgggtttc attgtgaaag atagctacac ctcacaagg aatggactgc	
			ctctcttgag cacttccctg gagctaccac gtatctagct aatatgtatg tgtcagtagt	
			aggctccaa gattgacaaa tataatttatg atctattcag ctgcttttac tgtgtggatt	
			atgccaaacag ctggaatgga ttctaacaga ctcctttgtt tttaaaagtc tgccttggtt	
			atgggtggaaa attactgaaa ctattttact gtgaacacagt gtgaactatt ataattgcaaa	
			tactttttaa cttagaggca atggaaaaat aaaagttgac tgtactaaaa atg	

28	274	Adenosine A2b. Receptor	NP_000667.1	<p>MLETQDALY VALELVIAL SVAGNVLVCA AVGTANTLQT PTNYFLVSLA AADVAVGLEA P IPFAITISLG FCTDFYGCLE LACFVLVLTQ SSIFSLAVA VDRYLAICVP LRYKSLVTGT RARGVIAVLW VLAFGIGLTP FLGWSKDSA TNNCTEPWDG TTNECCCLVK CLFENVVPMMS YMYFNFEGC VLPPLLLMLV IYIKIFLVAC RQLQRTLEMD HSRTTQREI HAAKSLAMIV GIFALCWLFP HAVNCVTLFQ PAQGNKPKW AMMAILLSH ANSVVNPIVY AYRNRDRFRT FHKIISRYLL QADVKSNG QAGVQPALGV GL</p>	Homo sapiens
29	275	Adenosine A3 Receptor	NM_000677	<p>atctttgctg caaaggctgg gtaatgctg tgctcagcaa agcgtcaact cgtgcaagaa A cttagcagga atagttctgg ctaaggttag gaggtgcca ccaaaagtctc tttttgttc ctctgcttct cccgtttgcc tcttatcat gagatcttt tgctaagctg gcagaaagat tgcatagtca gtgcttcag ctctgtccc acctgacct gcaactgctc ctggtccctg aatgaatgaa ctctgatacc caatctgtc tcgagccttc tctatgccac tcatggctcc tcttctgtc tttccatctt ttgtctgaga gttctgagct ctgtacttcc tcttgcccc tctcaacttc tgaacacccc ctgaagaggg ttgcttatct tgatggaact caaaaagcca aaaagctgca ggcagagggc ttgagacat ctgtttgggg aactaagagc agcagcactt tcagattcag tccatataga gctgtctac agcattctgg aaacttgagg atgtgcggtg cataaagggg ctggaagtga cccacctgtg atgagcctt tctaaggaga agggtttcca agagatcacc ccaccagaa aggttaggaa tgagcaagtt gggaatttta gactgtcaact gcacatggac ctctgggaag acgtctggcg agagctaggc ccaactggccc tacagacgga tcttgctggc tcacctgtcc ctgtggagg ttccctggga aggcaagatg cccaacaaca gcaactgctc gtcatggcc aatgtacct acatcacat ggaattttt attgactct ggccatagt gggaacgtg ctggtcatct gcgtggtcaa gctgaacccc agcctgcaga ccaccacctt ctatttcatt gtctctctag ccttggtgta cattgctgtt ggggtgctgg tcctgacctt ggccattgtt gtcagcctgg gcatacaaat ccaactctac agctgacctt ttatgacttg cctactgctt atctttacc acgctcccat catgtccttg ctggccatcg ctgtggaccg atacttgcg gtcaagctta ccgtcagata caagagggtc accactcaca gaagaatatg gctggccctg ggcccttctt ggctggtgtc attcctgggt ggattgaccc ccatgttttg ctggaacatg aaactgacct cagagtaacca cagaatgtc accttccctt catgccaatt tgttccgtc atgagaatgg actacatgggt atacttcagc tctctacact ggattttcat cccctgggtt gtcattggtg ccaactatct tgacatcttt tacatcattc ggaacaaact cagtctgaac ttatctaaat ccaaaagagc aggtgcattt tatggacggg agttcaagac ggctaagtcc ttgtttcttg ttctttctt gtttgctctg tcatgggtgc ctttatctat catcaactgc atcatctact ttaatgggtg ggtaccacag cttgtgctgt acatgggcat cctgctgtcc catgccaact ccatgatgaa ccctatcgtc tatgctata aaataaagaa gttcaaggaa acctacctt tgatccctcaa agcctgtgtg tctgccaac cctctgattc ttggacaca agcattgaga agaattctga gtagttatcc atcagagatg actctgtctc attgaccttc agattcccca tcaacaaaca cttgagggcc tgtatgctg ggccaaggga tttttacatc cttgattact tccactgagg tgggagcatc tccagtgtc cccaattata tctccccac tccactactc tcttctccca ctctatttt ccttgtctc ttctctctaa ttcagtgttt tggaggcctg acttggggac aactattat tgatatatt gtctgtttc cttctccca atagaagaat agtcatgga gcctgaaggg tgcctagtgtg acttactgac aaaaggctct agttgggctg acatgtgtg tgggtgtgac tcatttccat</p>	Homo sapiens

30	275	Adenosine A3 NP_000668.1 Receptor	gccaattgtg aattgagcag agaacctgct ctcggaggat gcctagaaga tggtgggaac agaagaaata aactgagttt aagggggact taaactgctg aattcacctg tggatgtttt tagataaata aaagctaata g MPNNSTALS L ANVYITMEI FIGLCAIVGN VLVICVVKLN PSLQTTTFYF IVSLALADIA P VGLVMPALAI VVSLGITHF YSCLEMTCLL LIFTHASIMS LLAIAVDRL RVKLTVRKYR VTTHRIWLA LGLCLVLSFL VGLTPMFCWN MKLTSEYHRN VTFLSCQFVS VMMDYMYF SFLTWFIFL VMCALYLDI FYIIRNKLSL NLSNSKETGA FYGREFTAK SLFLVLELFA LSWLPLSIIN CIIYFNGEVP QLVLYMGILL SHANSMMNPI VYAYKIKKFK ETYLLILKAC VVCHPSDSLD TSIEKNSE	Homo sapiens
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	atgaagcaca ttatcaactc gtatgaaac atcaacaaca cagcaagaaa taattccgac A tgtctctgtg tggttttgcc ggaggagata tttttcacaa tttccattgt tggagttttg gagaatctga tgcctctgtc ggctgtgttc aagaataaga atctccaggc acccatgtac tttttcatct gtagcttggc catatctgat atgtctggga gctatataa gatcttgaa aatatcctga tcatattgag aaacatgggc tatctcaagc cagctggcag ttttgaacc acagccgatg acatcatcga ctccctgttt gtccctccc tgcttggtc catcttcagc ctgtctgtga ttgctgcgga ccgtacatc accatcttcc acgcactgcg gtaccacagc atcgtgacca tgcgcgcgac tgtgtgtgtg cttaacggtca tctggacgtt ctgcacggg actggcatca ccatggtgat ctctctccat catgtgcca cagtgtacac cttcacgtcg ctgttcccg tcatgctgtt ctcatctgtg tgcctctatg tgcacatgtt cctgctggt cgatccacaca ccagggaagat ctccacctc ccagagacca acatgaaagg ggcacacaca ctgaccatcc tgcctggggt ctcatcttc tgctggggcc ccttgtgtct tcatgtcctc ttgatgacat tctgcccag taacctctac tgcgctgct acatgtctct cttccagggtg aacggcatgt tgatcatgtg caatgcctgc attgacctc tcatatgc cttccggagc ccagagctca gggacgcatt caaagagatg atcttctgca gcagtgactg gtag MKHIINSYEN INTARNSD CPRVLPPEI FFTISIVGL ENLIVLLAVF KNKNLQAPMY P FFICSLAISD MLGSLYKILE NILILRNMG YLKPRGSFET TADDIISLF VLSLLGSIFS LSVIAADRYI TIFHALRYHS IVTMRRTVV LTVIWTFCTG TGITMVFESH HVPTVITFTS LFPLMLVFIL CLYVHMFLLA RSHTRKISTL PRANMKGAIT LTILLGVFIF CWAPFVLHVL LMTFCPSNPY CACYMSLFQV NGMLIMCNAV IDPFIYAFRS PELRDAFKKM IFCSRYW	Homo sapiens
32	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	tcctgccgcg cgctcgttct gtgcccccg cccggccacc gacggccgcg cgttgagatg A actttccgcg atctcctgag cgtcagtttc gagggaacccc gcccgacag cagcgcaggg ggctccagcg cgggcggcgg cgggcggcgg cgggcggcgg cggccccctc ggagggcccg gcggtggcg gcgtgccggg gggcggcggc ggccggcgcg cgtgtgtggg cgcaggcagc ggcaggaca accggagctc cggcggggag cgggcggcgg cgggcggcgg cggcgacgtg aatggcacgg cggccgtcgg gggaactgtg gtgagcgcgc agggcgtggg cgtgggcgtc ttcctggcag ccttcatctt tatggcgtg gagggtaac tgcctgtcat cctctcagt gcctgcaacc gccacctgca gaccgtcacc aactatttca tcgtgaacct ggccgtggcc gacctgtgc tgagcgccac cgtactgccc ttctcgccca ccatggagggt tctgggcttc tgggcctttg gccgcctt ctgcgacgta tgggcgcgg tggacgtgct gtgtgcacg gcctccatcc tcagcctctg caccatctcc gtggaccggt acgtgggcgt gcgccactca	Homo sapiens
33	376	Alpha 1d-adrenoceptor		Homo sapiens

34	Alpha 1d- adrenoceptor	NP_000669.1	ctcaagtacc cagccatcat gaccgagcgc aagcgggcgc ccactctggc cctgctctgg gtcgtagccc tggtagtgtc cgtagggccc ctgctgggtt ggaagagcc cgtgccccct gacgagcgct tctgcggtat caccgaggag gcgggctacg gtgtcttttc ctcggtgtgc tcctttctacc tgcccatggc ggtcatcggt gtcatgtact gccgctgta cgtgggtcgcg cgagcacca cgcgcagcct cgagcgaggc gtcaagcgcg agcgaggcaa ggcctccgag gtggtgctgc gcatccactg tcgcggcgcg gccacggcg cgcacggggc gcacggcatg cgagcgcca agggccacac ctccgcagc tgcgtctcgc tgcgctgct caagtctctcc cgtgagaaga aagcgggcaa gactctggcc atcgtcgtgg gtgtcttctg tctctgctgg ttccctttct tctttgtcct gccgctcggc tccttggtcc cgcagctgaa gccatcgag ggcgtcttca agtcatctt ctggctcggc tacttaaca gctgctgaa ccgctctatc taccctgtt ccagccgga gtccaagcgc gccttctctc gtctctcgc ctgccagtgc cgtcgtcgc gccgcccgc cctctctgg cgtgtctacg gccaccact gcgggcctcc accagcgccc tgcgccagga ctgcgcccgc agtctggcg acgcgcccc cggagcgccg ctggccctca ccgcgctccc cgaccccgac ccgaaccccc caggcacgcc cgagatgcag gctccggtcg ccagccgtcg aaagccaccc agcgcttcc cgcagtggag gctcgtgggg ccgttccgga gaccacgac ccagctgcgc gccaaagtct ccagcctgtc gcacaagatc cgcccgggg gcgcgcagcg cgcagaggca gctgcgccc agcgtcaga ggtggaggct gtgtccctag gcgtccaca cgaggtggcc gagggcgcca cctgccaggc ctacgaattg gcgactaca gcaacctacg ggagaccgat atttaaggac ccagagctat ggcgcggag tgtctgggc ttgggggtaa gggggaccag agagcgggc tgggtgtcta agagcccccg tgcaaatcgg agaccggaa actgatcagg gcagctgctc tgtgacatcc ctgaggaact gggcagagct tgaggtgga gccctgaaa ggtgaaaagt agtggggccc cctgctggac tcaggtgccc agaactctt tcttagaagg gagagctgc gggctccgtg gggcctttg ctcccaatcc ctatttgaga aacactgccc catcctccat gccctgaacc ctgagtagac agcccaagc atggccagga agcctgccc SGEDNRSSAG EPGSAGAGGD VNGTAAVGGI VWSAQGVGVG VFLAAFILMA VAGNLLVILS VACNRHLQTV TNYFIVNLAV ADLLSATVL PFSATMEVLG FWAFGRAFCD VMAAVDVLCC TASILSLCTI SVDRYVGVHR SLKYPAMTE RKAAAILALL WVVALVSVG PLLGWKEPVP PDERFCGITE EAGYAVFSSV CSFYLPMAVI VMYCRVYV ARSTTRSLEA GVKRERKAS EVVLRHCRG AATGADGAHG MRSKAGHTFR SSLSVRLKLF SREKKAATL AIIVGVFVLC WPEFFFLPL GSLFPQLKPS EGVEKVI FWL GFNSCNVPL IYPCSSREFK RAFLRLRQ CRRRRRRRLP WRVYGHWRRA STSGLRQDCA PSSGDAPPGA PLALTALPDP DPEPPGTPEM QAPVASRRKP PSAPREWRLI GPFRRPTTOL RAKVSSLSHK IRAGGAQRAE AACQARSEVE AVSIGVPHEV AEGATCQAYE LADYSNLRET DI aggcaggaga cgtgctgccc gctgggctgc ccgggggaga tgactcctgc caggaggcgc A cctctgggaa gaagaccacg ggggaagcaa agtttcaggg cagctgagga gccttcgcgc cagcccttcc gagcccaatc atcccccagg ctatggaggg cggactctaa gatgaatccc gacctggaca ccggccacaa cacatcagca cctgccact ggggagagt gaaaaatgcc aacttcactg gcccacaa gacctgagc aactcacac tgccccagct ggacatcacc agggccatct ctgtgggcct ggtgctgggc gccttcatcc tctttgccat cgtgggcaac	Homo sapiens
35	Alpha 1b- adrenoceptor	NM_000679		Homo sapiens

Homo
sapiens

P

36 Alpha 1b- NP_000670.1
adrenoceptor

atcctagtagtca tcttgctgtgt ggctgcaac cggcaccctgc ggacgcccac caactacttc
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 cgtgcgcagc tttcttccc tggggaggaa aacatcgtgg ggggga
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 VGNILVILSV ACNRHLRTP NYFIVNLAMA DLLLSFTVLP FSAALEVLGY WVLGRIFCDI
 WAAVDVLCCT ASILSLCAIS IDRYIGVRYIS IQYPTLVTRR KAILALLSV VLSTVISIGP
 LLGWKEPAPN DDKECGVTEE PFYALFSLG SFYIPLAVIL VMYCRVIVA KRTKNLEAG
 VMKEMSNSKE LTLRIHSKNF HEDTLSSTKA KGHNPRSSIA VKLEKFSREK KAAKTLGIW
 GMFILCWLPF FIALPLGSLF STLKPPDAVF KVVFWLGYFN SCLNPIIYPC SSKEFKRAFV
 RILGCCQCRG RRRRRRRRR LGGCAYTYRP WTRGGSLSERS QSRKDSLDDS GSCLSGSQRT
 LPSASPSPGY LGRGAPPPVE LCAFPWKAP GALLSLPAPE PPRRRGRHDS GPLFTFKLLT
 EPESPGTDGG ASNGGCEAAA DVANGQPGFK SNNPLAPGQF
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 gggccccggt gggaccatgg tgttctctc gggaaatgt tccgacagct ccaactgcac

Homo
sapiens

A

37 Alpha 1c- NM_000680
adrenoceptor

38	Alpha 1c- adrenoceptor	NP_000671.1	<p> ccaaccgccg gcaccgggtga acatttccaa ggccattctg ctccgggtga tcttgggggg cctcattctt ttcgggggtg tgggtaacat cctagtgatc ctctccgtag cctgtcacccg acacctgcac tcagtcacgc actactacat cgtcaacctg gcggtggccg acctcctgct cacctccacg gtgctgccct tctccgcat cttcgaggtc ctaggctact ggcccttcgg cagggtcttc tgcaacatct gggcgcagc ggatgtgctg tctgacacg cgtcccatcat ggccctctgc atcatctcca tcgaccgta catcgcgctg agctaccgc tgcgtaccc aaccatcgtc acccagagga gggtctcat ggctctgctc tgcgtctggg cactctccct ggtcatatcc attggacccc tgttcggctg gaggcagccg gcccgcagg acgagacctat ctgccagatc aacgaggagc cgggctacgt gctcttctca gcctgggct ccttctacct gctctggcc atcatcctgg tcatgtactg ccgctctac gtggtggcca agaggagag ccggggcctc aagtctggcc tcaagaccga caagtcggac tcggagcaag tgacgctccg catccatcgg aaaaacgccc cggcaggagg cagcgggatg gccagcga agaccaagac gcacttctca gtgaggctcc tcaagtctc cgggagagaag aaagcgcca aaacgctggg catcgtggtc ggctgcttcg tctctgctg gctgcctttt ttcttagtca tgccattgg gtctttcttc cctgatttca agccctctga aacagttttt aaaatagtat ttggctcgg atatctaac agctgcatca accccatcat ataccatgc tccagccaag agttcaaaaa ggcttttcag aatgtcttga gaatccagt tctccgaga aagcagtctt ccaaacatgc cctgggctac accctgcacc cggccagcca ggccgtggaa gggcaacaca aggacatggt gcgcatcccc gtggatcaa gagagacctt ctacaggatc tccaagacgg atggcgcttg tgaatgaaa tttttctctt ccatgccccg tggatctgcc aggattacag tgtccaaaga ccaatcctcc tgtaccacag ccgggtgag aagtaaaagc ttttggagg tctgctgctg ttagggccc tcaaccccca gcttgacaa gaaccatcaa gtccaaacca ttaaggtcca caccatctcc tcaagtga gaaggaggga agtctaggac aggaagatg cagaggaaaag gggaataatc ttaggtacc accccattc ctctcggaa gcccagctct tcttgaggga caagacagga ccaatcaaa aggggacctg ctgggaatgg ggtgggtggt agaccacat catcaggcag cggtagggc acagggaaga ggaggggtgt ctcaacaacca accagttcag aatgatacgg aacagcatt ccctgcagct aatgctttct tggtcactct gtgccactt caacgaaaac caccatggga aacagaattt catgcacaat ccaaaagact ataaatatag gattatgatt tcatcatgaa tattttgagc acacactcta agttggagc tattcttga tggaagtga gggattttat tttcaggctc aacctactga cagccacatt tgacatttat gccggaattc </p>	Homo sapiens
379	Alpha 1c- adrenoceptor	NP_000671.1	<p> SSNCTOPPAP VNISKAILLG VILGGLILFG VLGNILVILS VACHRIHLSV P THYYIVNLAV ADLLTSTVL PFSAlFEVLG YWAFGRVFCN IWAADVLC TAsINGLCII SIDRYIGVSy PLRYPTIVTQ RRLMALLCV WALSLVISIG PLFGWRQFAP EDETICQINE EPGYVLFsAL GSFYLPILAI LVMYCRVYV AKRESRLKS GLKTDKSDSE QVTLRIHRKN APAGSGMAS AKTKTHFSVR LLKFSREKKA AKTLGIVVGC FVLCWLPFFL VMPIGSFFPD FKPSSETVFKI VFWLGLNSC INPIIYPCSS QEFKAFQNV LRIQCLRRKQ SSKHALGYTL HPPSQAVEGQ HKDMVRIPVG SRETfYRISK TDGVCeWKFF SSMPrGSARI TVSKDQSSCT TARVRsKsFL EVCCCVGPST PSLDKNHQVP TIKVHTISLS ENGEEV gcgctcggcg ccacacaggc ggacgccccg gagaacccct gcctccgtcg cggctcctgg A agagctgac gtccacctgc cccggccccg gggtgccttc atgcggcccc </p>	Homo sapiens
39	Alpha 2a- adrenoceptor	NM_000681		

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40	387	Alpha 2a- adrenoceptor	AAA51664.1	<p>gctcaaaaaa ggttaaatgga tgggggttac ctatgcctgg ctaattcccc ttccattccc aactctctct ctctttttga agaaaaatgc taaggcgagc cctgcctgcc ctcccatccc cccgctgtaa atatacacta tttttgatag cacacatggg gcccccatat ctcttggcct tggttttgat gttgaaatcc tggccttggg agagatgcct tccaggcaga cacagctgtc tggttcaggc caagcccctt tgcattgcaa gccctttctg gtgttatgaa gtccctctat gtcgtcgttt tcaccagcaa ctggtgactg tccctcgac acggacctgc tttgagattt cctgacaggg aaagatttc tgtccatttt tttcctgtgc ctaacagcat aattgccttt tcctatgtaa atattatgat ggtgatcaa gacataagta aatgagcctt tctgcctcac atcagccctg tgtataaagc cattattctc tgcagcactg tttgccccag taactcactt taaaacctct cttccagtg tccctctct tccctcaggg cactgccttg aagaagaata tgtatgtttc tatcttat gctcgtgtgc cctcctcctg cgaagatgc tgcctatggg gaaatctttt agctgctgtt tttagactcc aggagtgga aattatgtg aagaagcaaa cctgatacaa ttgcccag gttaacagtt tgaagaagaa aatgggctg ccaaaactgta cagtttcttc ccaagagct gtaggtatc aaatgttgt cctttcccc ctcgtgctt ttctggtga gatcatgtca ttgatgaact gccaaagtca ggggaggagg gcagagactt tgtgtttaca tctgcatttc tacatgttt agacagagac aatttaaggc ctgcactctt atttcaacta agaaaaacta atgtcagcac atgtgtgtaa tgacagtga tttttttta aataaaaaa tttacagatc aaatgtgaaa taaatatgaa tggagtgtc aaa</p> <p>MSLQPDAGN ASWNGTEAPG GGARATPVS L QVTLTVCLA GLMLLTVFG NVLVIIVFT P SPALKAPQNL FLVSLASADI LVATLVIPFS LANEWMGYWY FGKTWCEIYL ALDVLFTSS IVHICAISLD RYWSITQAE YNLKRTPRRI KAIITCWVI SAVISFPPLI SIEKKGGGGG QPAEPRCEI NDQKWYISS CIGSFFAPCL IMILVYVRIY QIAKRTRVP PSRRGPDVA APPGTERRP NGLGPERSAG PGGAEEPLP TQINGAPRDTDA LDLEESSSD HAERPGRPRR PERGPRGKGK ARASQVKPGD SIRGAGRRR GSGRRQLQGRG RSASGLPRRR AGAGGQNLK RFTFVLAVI GVFEVVCWFFP FFTYTLTAVG CSVPRTLKF FWFEGYCNSS LNPVIYTFN HDFRAFKKI LCRGDRKRIV</p>	Homo sapiens
41	388	Alpha 2b- adrenoceptor	NM_000682	<p>atggaccacc aggacccta ctccgtgcag gccacagcgg ccatagcggc ggccatcacc A ttcctcattc tctttaccat ctteggcaac gctctggtca tcctggctgt gttgaccagc cgtcgtgtgc gcgcccctca gaacctgttc ctggtgtcgc tggccgcgcg cgacatcctg gtggccacgc tcatcatccc tttctcgtg gcaaacagagc tctgggcta ctggtacttc cggcgacgt ggtgcaggt gtacctggcg ctgcagctgc tcttctgcac ctctccatc gtgcacctgt gcgcatcag cctggaccgc tactgggccc tgagccgcgc gctggagtac aactccaagc gcaccccgcg ccgcatcaag tgcacatccc tcaactgtgt gctcatcgcc gcgtcatct cgtgcccgc cctcatctac agggcgagcc agggccccc gccgcgcggg cgccccagt gcaagctcaa ccaggaggcc tgggtacatcc tggcctccag catcggtatc ttctttgtc cttgcctcat catgatcctt gtctacctgc gcactacct gatcgccaaa cgagcaacc gcagaggtcc cagggccaaag ggggggcctg gccaggtgta gtccaagcag cccgaaccc accatggtg ggctttggc ttagccaaac tgcagccct ggcctctgtg gcttctgcca gagaggtcaa cggacactcg aagtccactg gggagaagga ggaaggggag accttgag atactgggac cgggcccctg ccacctagtt ggcctgcct tcccaactca ggccagggcc agaaggaggg tgtttgtggg gcactctccag aggatgaagc tgaagaggag</p>	Homo sapiens

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 gctattttat caataaagga tattttgtaa taag

Homo

P

RSLRAPQNL

ALVILAVLTS

FLILFTIFGN

ATAAIAAAIT

NP_000673.1

Alpha 2b-

388

42

adrenoceptor						sapiens

43 389 Alpha 2c- adrenoceptor NM_000683

Homo
sapiens

P

44 389 Alpha 2c-
adrenoceptor NP_000674.1

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 ttgtaa

Homo
sapiens

A

45 599 Bradykinin
B1 Receptor NM_000710

ctgtgcatgg catcatcctg gccctcctta gagctccaat cctccaacca gagccagctc
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 cc

46	599	Bradykinin B1 Receptor	NP_000701.1	MASSWPPLEL QSSNQSQLEP QNATACDNAP EAWDLLHRVL PTFIISICFF GLIGNLFVLL P VFLLPRRQIN VAEIYLANLA ASDLVFVLGL PFWAENIWNQ FNPWFGALLC RVINGVIKAN LFISIFLVA ISQDRYRVLV HPMASGRQOR RRQARVTCVL IMVVGGLLSI PTFLLRSIQIA VPDLNITACI LLLPHEAWHF ARIVELNILG FLLPLAAIVE FNYHILASLR TREEVSRTRV RGPKDSKTTA LILTLVAFL VCMAPYHFFA FLEFLFQVQA VRGCFWEDFI DLGLQLANFF AFNSSLNPV IYFVGRLEP TKWELYKQC TPKSLAPISS SHRKEIFQLF WRN	Homo sapiens
47	600	Bradykinin B2 Receptor	NM_000623	atgttctctc cctggaagat atcaatgttt ctgtctgttc gtgaggactc cgtgcccacc A acggcctctt tcagcgccga catgctcaat gtcaccttgc aagggccacc tcttaacggg acctttggcc agagcaaatg ccccaagtg gagtggctgg gctggctcaa caccatccag cccccttcc tctgggtgct gtctgtgtctg gccaccctag agaacatctt tgtcctcagc gtcttctgcc tgcacaagag cagctgcacg gtggcagaga tctacctggg gaacctggcc gcagcagacc tgatcctggc ctgcgggtg ccttcttggg ccatacccat ctccaacaac ttcgactggc tctttgggga gacgtctgc cggctgttga atgccattat tccatgaac ctgtacagca gcatctgttt cctgatgtctg gtgagcatcg accgtacctt ggccctgggtg aaaacctatg ccatgggccc gatgcgggc gtgcgtggg ccaagctcta cagcttgggtg atctgggggt gtacgtgct cctgagctca cccatgctgg tgtccggac catgaaggag tacagcgatg agggccacaa cgtcacgct tgtgtcatca gctaccatc cctcatctgg gaagtgttca ccaacatgct cctgaatgtc gtgggcttcc tgtgccccct gagtgtcatc accttctgca cgtgcatgac catgacagtg ggcacagtg ctgcggaaca acgagatgca gaagtccaag gagatccaga cggagaggag ggcacagtg ctagtcttgg ttgtgctgct gctattcatc atctgctggc tgcccttcca gatcagacc ttcttgata cgtgcatcg cctcggcatc ctctccagct gccaggacga gcgcatac gcgtaatca cacagatgc cctctcatg gcctacagca acagctgcct caaccactg gtgtacgtga tctgtggcaa gcgttccga aagaagtctt gggaggtgta ccaggagtg tgccagaaa ggggctgcag gtcagaacct attcagatgg agaactccat gggcacactg cggacctcca tctccgtga acgccagatt cacaactgc agactgggc agggagcaga cagtgcagca acgccagcag ggctgctgtg aatgtgtga aggatggag gacagtgtct ttctcagcatg ggccaggaa tgccaaggag acatctatgc acgaccttg gaaatgagtt gatgtctccg gtaaacacc ggagactaat tctgccccctg ccaaatcttg caggagcat ggctgtgagg atggggtgaa ctacgcaca gccaaggact ccaaatcac aacagcata ctgttcttat ttgtgccac acctgagcca gcctgctcct tcccaggat ggaggaggcc tggggggagg gagaggatg actgagcttc cctccccgtg gttctccgtc cctgccccag caagacaact tagatctcca ggagaactgc catccagctt tgggtgcaatg gctgagtga caagtgagtt ttgccccgg gtttctttaa tctattcagc tagaactttg aaggacaatt tcttgcatca ataaaggta agccctgagg ggtccctgat acaaaccttg agaccaggat ttatgtgctc cctcactga tggacaagga ggtctgtgcc aaagaagaat ccaataagca catattgagc acttgctga tatgcagtat tgagcactgt aggcaagacc caagaaagag aagagacctt cctcatcttg aaggaaactca aagactcaag tgggaacgac tgggcactgc caccaccaga aagctgttcg acgagcgggt cgagcaggggt gctgtgggtg atatggacag cagaaggggg agaccaaggt tccagctcaa ccaataacta ttgcacaacc acctgtccct gcctcagttc cttttatgt aacatgaagt cgttgtgagg gttaaaggca gtaacaggta taaagtactt agaaaagcaa aggtgtctac	Homo sapiens

48	600	Bradykinin B2 Receptor	NP_000614.1	<p> gacatgtga ggcacattta cgcagacgta actgggatat gttactata agaaaaagac actgaggtct agaaatagct ccgtggagca gaatcagtat tgggagccgg tggcggtgtg aagcaccagt gtctggcaca cagtaggtgc tcattggctc cctccacct gtcattccca ccaccctgag gccccaaccg ccacacacac agagcattt ggagagaagg ccatgtcttc aaagtctgat ttgtgatgag gcagaggaag atatttctaa tcggtcttgc ccagaggatc acagtgtga gacccccac caccagccgg tacctgggaa gggggagagt gcaggcctgc tcagggactg ttctgtctc agcaaccaag ggattgttcc tgtcaatcaa tggtttatg gaaggtggcc cagtatgagc cctagaagag tgtgaaaagg aatgggcaatg gtgttcacca tcggcagtc cagggcagca ctcatctact tgataaatga atatttatta gctggttga gagtagaac ctggagagct agaacctgga gaactagaac ctggagggtc agaacctgga gaggctagaa ccaagaagg ctgaacctg gaggggctag aacctagaga agctaaaaacc tgagctagaa gctggaggac tagaacctgg agggctgga tctgaagggc tagaacctgg agggctgga tctggagagc tagaacctgg agggctgga aacctagaga tagaacctgg aagggctaga acctggagg ctggaatctg gagagctaga acctggagg gtagaacctg gagggctaga acctgaaagg gctagaacct ggagggctag aacctggcag gtagaacctg agaagggcta gaacctggag agccagaacc tggagggcta gaacctggaa gggctagaac ctgtagagct agaactgga gagtagaac cggcaggct agaacctggc aagctagaac ctggagggaa tgaacctgga gggctagaac ctggagaatg agaaaaatc acatggcaca gagccataa atcctgacca atccaaactc gaattttaa gcaaaagcgt gaaaaaaaag attccctct taccaccaac ccaactcttt tccccaccac ccaactctct ctgcctcagt aagtatctgg aggaagaaaa caggtgaaag aagaagtaa aacctattag tattagtatt agaataagt caaactgtgc cacacatggt gaatgaaaa aaaaaaaag aggtgtgtt ttgtcacaca ggcagtcct tccagcaccag agcacgtgat ggtctgagac tctcttagga gcagagctct gccgcaatgg ccattgtgggg atccacacct ggtctgaggg caactgagt ctgcgggaga agagcgccc tatgcatggt tagatgccc tgataagaa catctgtcct gtgaaagact caatgagctg ttatgttga aacaggagc atttcacatc caaacgagaa aatcatgtaa acatgtgtct ttctctgata gcataataa tggatgaggt ttttgcaaaa aaaaaaaa aaa </p>	Homo sapiens
49	635	Beta-1 adrenoceptor	NM_000684	<p> tgcataccgc gcccggtt ctgggtgtt ccccaaccac ggccagccc tgccacacc A cccgccccgc gcctccgag ctggcagtc gcgcgggggt gctcgtcctg ggcgctccg agccccgtaa cctgtcgtcg gccgcaccgc tccccgacgg cgcggccacc ggcgcgcggc tgctggtgcc cgcgtcgccg cccgctcgtg tgctgcctcc cgcagcgaa agccccgagc cgtgtctca gcagtgga cgcggcagtc gctgtctgat ggcgtcatc gtgctgtca tcgtggcggg caatgtgctg gtgatcgtg ccatcgccaa gacgcgcggg ctgcagacgc </p>	Homo sapiens

50	Beta-1 adrenoceptor	NP_000675.1	<p> taccacacct cttcatcatg tccctggcca gcgcggacct ggtcatgggg ctgctgggtg tgccgttcgg ggcaccatc gtggtgtggg gccgttgga gtaaggctcc ttctctctg agctgtggac ctgagtggac gtgctgtgag tgacggccag ctacagagc ttgtgtgtca ttgcccctgga ccgtacctc gccatcacct gccccttccg ctaccagagc ctgctgacgc gcgcgcgggc gcggggccct gtgtgacccg tgtgggacct ctgggcccct gtgtccctcc tgccatcct catgcaactg tggcggggcg agagcgacga ggcgcgcgcg tgctacaacg accacaagt ctgcgacttc gtcaccaac gccctacgc catgcctcg tccgtagtct ccttctacgt gccctgtgc atcatggcct tctgttacct gcgggtgttc cgcgaggccc agaagcaggt gaagaagatc gacagtgcg agcgcgcttt cctcggcggc ccagcgcggc cgccctgcgc ctgcctcgc cccgtcccc gcgcgcgcgc gccgcgcga cccccgcgc cgcgcgcgc gcgcgcacc gccccgtgg ccaacggcg tgcgggtaag cgcgcggccct cgcgcctcgt ggcctacgc gacgaagag cgtcaagac gctgggcac atcatggcg tcttcaact ctgctggctg ccttcttcc tggcacaagt ggtgaaggc ttccaccgcg agctgtgtgc cgaccgctc ttcttcttct tcaactggct ggcctacgc aactcggcct tcaaccccat catctactgc cgcgcgcgc acttccgca ggccttccag ggactgctct gctgcgcgc caggctgc gcgcgcgc gcgcgcgc catcgcgcgc gcgcgcgcct cgggtgtct gccgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc acgacgatgt cgtcgggcgc gcgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc acgcgcgggc gcgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc cctcgggaat caaggtgtg gcgcgcgc gcgcgcgc gcgcgcgc gcgcgcgc gggaacgagg agatctgtgt ttacttaaga ccgatagcag gtgaactcga agccacaat cctcgtctga atcatccgag gcaagagaa agccacgga cgttgacaca aaaaggaaa ttgggaagg gatggagag tggctgtctg atgttctctg ttg </p>	Homo sapiens
635	Beta-1 adrenoceptor	NP_000675.1	<p> MGAGVLVGA SEPNLSSAA PLPDGAATAA RLIVPASPPA SLPPASEP EPLSQWTAG P MGLMALIVL LIVAGNLVI VAIKTPRLQ TLNLFIMSL ASADLMGLL VVFGATIV WGRWEYGSFF CELWTSVDVL CVTASIEILC VIALDRYLAI TSPFRYQSL TRARGLVC TVWALSALVS FLPILMHWR AESDEARRCY NDPKCCDFVT NRAYAIASSV VSFYVPLICIM AFVYLRVRE AQQVKKIDS CERRELGGPA RPPSPSPV PAPAPPPGP RPAAAAATAP LANGRAGRR PSRLVALREQ KALKTLGIIM GVFTLCWLPF FLANVVKAFH RELVPDRLFV FFNLGYANS AFNPIIYCRS PDKFAFQGL ICCARRAARR RHATHGDRPR ASGCLARPGP PPSPGAASDD DDDDVVGATP PARLLEPWAG CNGGAAADSD SSLDEPCRPV FASESKV </p>	Homo sapiens
51	Beta-2 adrenoceptor	NM_000024	<p> actgcgaagc ggcttcttca ggcacgggc tggaaactggc aggcacgcg agcccctagc A acccgacaag ctgagtgtgc aggcagagtc cccaccacac ccacaccaca gccgtgaat gaggtctcca ggcgtccgt cgcgcgcgc agagccccgc cgtgggtccg cccgtgagg cgccccagc cagtgcgtt acctgcaga ctgcgcgcca tggggcaacc cgggaacggc agcgccttct tgcgggcacc caatagaagc ctgcgcgcgc accacagct cagcagca agggacgagg tgtgggtggt gggcatgggc atcgtcatgt ctctcatgt cctggccatc gtgtttggca atgtgctggt catcacagcc attgccaagt tcgagcgtct gcagacggtc accaactact tcatcacttc actggcctgt gctgatctgg tcatggcctt ggcagtgtg ccctttgggg ccgccatat tcttatgaaa atgtggactt ttggcaactt ctgggcgag ttttggactt ccattgatgt gctgtgcgtc acggccagca ttgagacctt gtgcgtgatc </p>	Homo sapiens

52	Beta-2 adrenoceptor	NP_000015.1	<p>gagtggtatc gctactttgc cattacttca ctttcaagt accagagcct gctgaccaag aataaggccc ggtgatcat tctgatgtg tggattgtg caggccttac ctccttcttg ccattcaga tgcactggtg ccgggccacc caccaggaag catcaactg ctagccaat gagacctgct gtgacttctt caccgaaccaa gctatgcca ttgctcttcc catcggtgcc ttctacgttc cctggtgat catggtcttc gtctactcca ggtcttttca ggaggccaaa aggcagctcc agaagattga caaatctgag ggccgcttcc atgtccagaa ccttagccag gtggagcagg atgggcggac ggggcatgga ctccgcagat ctccaagt ctgcttgaag gagcacaag cctcaagac gtaggcac atcatggga ctttcaacct ctgctggctg cctttcttca tggtaacat tgtgcatgtg atccaggata acctcatccg taaggaaagt tacatctccc taaattggt aggtatgtc aattctggt tcaatcccc tatctactgc cggagcccg atttcaggat tgcctccag gagcttctgt gctgcccag gtcttctttg aaggcctatg ggaatggcta ctccagcaac ggcaacacag gggagcagag tggatatcac gtggaacagg agaaagaaa taaactgctg tgtgaagacc tcccagacc ggaagacttt gtgggccatc aagtgactgt gctagcgt aacattgatt cacaaggag gaattgtagt acaaatgact cactgctgta agcagtttt tctactttta aagaccccc ccccccaac agaacactaa acagactatt taacttgagg gtaataaact tagaataaaa ttgtaaaaa tgtatagaga tatgcagaag gaaggccatc ctctgcctt ttttattttt ttaagctgta aaaagagaga aaacttattt gaggattat ttgttatttg tacagttcag ttcctctttg catggaattt gtaagtttat gtctaaagag ctttagtctt agaggacctg agtctgctat attttcatga cttttccatg tatctacctc actattcaag tattagggtt aatatattgc tgctggtaat ttgtatctga aggagatttt ccttccata ccttggact tgaggatttt gagtatctcg gacctttcag ctgtgaacat ggactcttcc cccactctc ttatttgctc acacggggtg ttttaggcag ggaattgagg agcagcttca gttgttttcc cgagcaagg tctaaagttt acagtaataa aatgtttga ccatg</p>	Homo sapiens
640	Beta-2 adrenoceptor	NP_000015.1	<p>SLIVLAIVFG NVLIVITAIK P FGNFWCEFWT SIDVLCVTAS SGLTSFLPIQ MHWYRATHQE RVFQEAQRQL QKIDKSEGRF ALKTGLIIMG TFTLCWLPFF IVNIVHVIQD DFRIAFQELL CLRRSSLKAY GNGYSSNGNT QGTVPDND SQGRNCSTND SLL</p>	Homo sapiens
53	Beta-3 adrenoceptor	NM_000025	<p>gctactctc ccccaagagc ggtggcaccg agggagtgg ggtgggggga ggtgagcgc A tctggctggg acagctagag aagatggccc aggtgggga agtcgctctc atgccttgc gtccctccc ctgagccagg tgatttggga gacccctcc ttccttctt cctaccgcc ccacgcgcga cccctggcg gctccgtggc ctacagagaa cagctctctt gccccatggc cggacctccc cactctggcg cccaatccg ccaacaccag tgggctgcca ggggttccgt gggagggcgc cctagccggg gccctgctgg cgctggcgt cgtggccacc ttgggagga acctgctggt catcgtggcc atcgccctgga ctccgagact ccagaccatg accaacgtgt tcgtgacttc gctggccgca gccgacctgg tgatgggact cctggtgggt ccgccggcgg ccacctggc gctgactggc cactggccgt tgggcgccac tggctgcag ctgtggacct cgggtggacct gctgtgtgtg accgccagca tcgaaacctt gtcgccctg gccgtggacc</p>	Homo sapiens

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ccttcgcgcg	tctctgtgc	cgctgcggcc	gtcgcctgcc	tcggagccc	tgcgcgcgcg
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tcaaatgtct	tgtgtcataa	atatattctg	atgtttccca	gcctttccac	aacctctacc
ttccactca	ccttcccccg	ctacaaaaat	ctgtattatc	ctcttaaa	aaaactggag
ttac					

Ното

sapiens

Beta-3
adrenoceptor

55	688	Opsin, blue- sensitive	NM_001708	<p>CRCGRRRLPPE PCAAARPALF PSQVPAARSS PAQPRLCQRL DGASWGVS</p> <p>ggcatccatg agaaaaatgt cggaggaaga gttttatctg ttcaaaaaata tctcttcagt A</p> <p>ggggccgtgg gatggcctc agtaccacat tgccccctgc tgggccccttct acctccaggc</p> <p>agctttcatg ggcactatgt tctttatagg gtccccactc aatgccatgg tgcgtggtggc</p> <p>cacactgcgc tacaaaaagt tgcggcagcc cctcaactac attctggtca acgtgtcctt</p> <p>cggaggcttc ctccctctgca tcttctctgt ctccccctgc ttctgtcgcca gctgtaacgg</p> <p>atacttcgtc ttccgtcgcc atgtttgtgc ttggaggggc ttctgtggga ctgtagcagg</p> <p>tctggttaca ggatggtcac tggccttctc tggcctttgag cgtacatttg tcatctgtaa</p> <p>gcccctgggc aacttcgctc tcaagctcaa gcatgcactg acgtggtgccc tggctacctg</p> <p>gaccattggt attggcgtct ccatccacc ctctcttggc tggagccggt tcatccctga</p> <p>gggctgcag tgttccctgt gcccctgactg gtacaccgtg ggcacaaaat accgcagcga</p> <p>gtctatagc tggttcctct tcatcttctg ctctattgtg cctctctccc tcatctgctt</p> <p>ctctacact cagctgctga gggccctgaa agctgttgca gctcagcagc aggagtcagc</p> <p>tacgacccag aaggctgaac gggaggtgag ccgcatgggt gttgtgattg taggatcctt</p> <p>ctgtgtctgc tacgtgccct acgcggcctt cgccatgtac atggtcaaca accgtaacca</p> <p>tgggctggac ttacggcttg tccaccattcc ttcattcttc tccaagagtg cttgcatcta</p> <p>caatcccatc atctactgct tcatgaataa gcagttccaa gcttgcatac tgaagatggt</p> <p>gtgtgggaag gccatgacag atgaatccga cacatgcagc tcccagaaaa cagaagtctt</p> <p>tactgtctcg tctaccacag ttggccccaa ctgaggacc ccaattggcc tgtttgcaac</p> <p>agtagaatt aaattttact t</p>	Homo sapiens
56	688	Opsin, blue- sensitive	NP_001699.1	<p>MRKMSSEEFY LFKNISSVGP WDGPOXHIAP VWAFLQAAF MGTVFLIGFP LNAMVLVATL P</p> <p>RYKLRQPLN YILNVVSFGG FLICFSVFP VFVASCNGYF VFGRHVCALE GFLGTVAGLV</p> <p>TGWSLAFIAP ERYIVICKPF GNFRSSKHA LTVVLATWTI GIGVISIPFF GWSRFIPEGL</p> <p>QCSCGPDWYT VGTKYRSESY TWFLFIFCFI VPLSLICFSY TQLLRALKAV AAQQQESATT</p> <p>QKAEREVSRM VVMVGSFCV CYVPYAAEFM YMVNNRNHGL DLRLVTIPSF FSKSACIYNP</p> <p>IIYCFMNKQF QACIMKMWCG KAMTDES DTC SSQKTEVSTV SSTQVGPN</p> <p>gagtatctgg atgtcttggg tttctctccc attctgttct gttctgttct cctaataacca A</p> <p>tctcgttact agacgtaggc atgggacgtg acaatcaact gcatttgaac tgagaagaag</p> <p>aaatattaaa gacacagtct tcagaagaaa tggctcaaa gacgcctcac tcacctaatc</p> <p>agactttaat ttcaatcaca aatgacacag aatcatcaag ctctgtggtt tctaacgata</p> <p>acacaaataa aggatggagc ggggacaaact ctccaggaaat agaagcattg tgtgccatct</p> <p>atattactta tgcgtggtgc atttcagttg gcaccccttg aaatgctatt ctcatcaaa</p> <p>tctttttcaa gaccaaacc atgcaaacag ttccaaatat tttcatcacc agcctggctt</p> <p>ttggagatct ttacttctg ctaacttggg tcccagttga tgcacactac taccttgcag</p> <p>aaggatggct gttcggaaga attggttga aggtgctctc ttctatccgg ctcaacttctg</p> <p>ttggtgtgct agtgttcaca ttaacaattc tcagcgctga cagatacaag gcagttgtga</p> <p>agccacttga gcgacagccc tccaatgcca tctgaagac ttgtgtaaaa gctggctgcg</p> <p>tctggatcgt gtctatgata ttgtctctac ctgaggtctat attttcaaat gtatacactt</p> <p>ttcgagatcc caataaaaa atgacatttg aatcatgtac ctcttacct gtctctaaga</p> <p>agctcttgca agaaatacat tctctgctgt gcttcttagt gtctacatt attccactct</p> <p>ctattatctc tgcctactat tcccttgattg ctaggaccct ttacaaaagc accctgaaca</p>	Homo sapiens
57	692	Bombesin Receptor Subtype-3	NM_001727		Homo sapiens

58	692	Bombesin Receptor Subtype-3	NP_001718.1	<p> tacctactga ggaacaaagc catgcccgta agcagattga atcccgaaag agaattgcc gaacgggtatt ggtgtgtgtg gctctgtttg cctctgtgtg gttgcgaat cactctctgt acctctacca ttcatctact tctcaaacct atgtagaccc ctctgccatg catttcattt tcaccatttt ctctcggtt ttggctttca gcaattcttg cgtaaacccc ttgtctctct actggctgag caaaagcttc cagaagcatt ttaaagctca gttgttctgt tgcaaggcgg agcggcctga gctcctgtt gctgacacct ctcttaccac cctggctgtg atgggaacgg tcccgggac tgggagcata cagatgtctg aaattagtgt gacctgttc actgggtgta gtgtgaagca ggcagaggac agattctagc ttttcaagga aaaatgtgtc ttctctctcc agcgtgtgta tccgactcta agctgtgtgc agg GILGNAILIK VFFKTKSMQT VPNIFFITSLA FGDLLLLLTC VPVDATHYLA EGWLFGRIGC KVLSEFIRLTS VGVSVFTLTI LSADRYKAVV KPLERQPSNA ILKTCVKAGC VMIVSMIFAL PEAIFSNVYT FRDPNKNMTE ESCTSYPVSK KLLQEIHSLL CFLVFIYIPL SIISVYYSLI ARTLYKSTLN IPTEEQSHAR KOIESRKRIA RTVLIVLVALF ALCWLPNHLI YLYHSFTSQT YVDPSAMHFI FTIFSRVIAF SNSCVNPFAL YWLSKSFQKH FKAQLFCCKA ERPEPPVADT SLTTLAVMGT VPGTGSIQMS EISVTSFTGC SVKQAEDRF </p>	Homo sapiens
59	729	CXC Chemokine Receptor 5	NM_001716	<p> gctgccacct ctctagagg accctggcggg gaggctctca acataagaca gtgaccagtc A tggtgactca cagccggcac agccatgaac tacccgctaa cgctggaaat ggacctcgag aacctggagg accctgtctg ggaactggac agattggaca actataagca cactccctg gtggaataac atctctgccc tgccacagag gggccctcca tggcctctt caaggccgtg ttcgtgcccc tggcctacag cctcatcttc ctctggggcg tgatcgga cgtcctgggtg ctggtgatcc tggagcggca cggcgagaca cgcagttcca cggagacctt cctgttccac ctggccgtgg ccgacctcct gctggtcttc atcttgccct ttgccgtggc cgagggtctt gtgggctggg tccctggggac ctctccttgc aaaaactgtga ttgccctgca caaagtcaac ttctactgca gcagcctgct cctggcctgc atcgccgtgg accgctacct ggcattgtc cacgcgtcc atgcctaccg ccaccgcgc ctctctcca tccacatcac ctgtgggacc atctggctgg tgggcttctt ccttgccctg ccagagattc tcttcgcaa agtcagccaa ggccatcaca acaactcctt gccacgttg cccttctccc aagagaacca agcagaaacg catgctgggt tcacctccc attcctctac catgtggcgg gattcctgct gccatgctg gtgatgggt ggtgctacgt gggggtagt gacaggttg cccaggccca gggcgccct cagcggcaga aggcagtcag ggtggccatc ctggtgacaa gcatcttctt cctctgtg tcacctacc acatgctcat ctctcctggac accctggcga ggtgaaggc cgtggacaat acctgcaagc tgaatggctc tctccccctg gccatcaca tgtgtgagtt cctgggctg gcccactgct gctcaaccc catgctctac actttgcctg cgtgaagtt ccgcagtgc ctgtcgccgc tctgacgaa cctgggctgt accggccctg cctccctgtg ccagctctc cttagctggc gcaggagcag tctctctgtg tcagagaatg ccacctctt caccagttc taggtccag tgtcccttt tattgctgct ttctctggg caggcagtg atgtggatg ctccttccaa caggagctgg gatcctaagg gctcaccgtg gctaagagt tctaggagt atcctcattt ggggtagcta gaggaaccaa ccccatctt tagaacatcc ctgccagtc ttctgcccgc cctggggcta ggctggagcc caggagcgg aaagcagtc aaaggcacag tgaaggctgt ccttaccat ctgcaccccc ctgggctgag agaactcac gcacctccca </p>	Homo sapiens

60	CXC Chemokine Receptor 5	NP_001707.1	729	<p> tctaatacat ccaatgctca agaaacaact tctaattctg cccttgccaa cggagagcgc ctgccccctc cagaacacac tccatcagct taggggtgctg tgacctccac agttccccct ctctctctct gccacactgt caaacaagc gcaccagctga gcaccagggg atgagtggag gttaaggctg aggaaggcc agctggcagc agagtgtggc cttcgacaa ctcagtccct aaaaacacag acattctgcc agcccccaa gctgcagtc ccctgcagtc atcttgacca agcagggaagc tcagactggt tgagttcagg tagctgcccc tggctctgac cgaacacagc ctgggtccac cccatgtcac cggatcctgg gtgtctgca ggcagggtg actctaggtg ccttggagg ccagccagtgc acctgaggaa gcgtgaaggc cgagaagcaa gaaagaaacc cgacagagg aagaaaagag cttctctccc gaaccccaa gaggagatg gatcaatcaa acccggcgg ccctccgcc agcagatg ggtggggtg gagaactcct aggtggctg ggtccaggg atggagggtt gtggcattg atggggaag aggtggctt gtccccct cactccctc ccataagcta tagaccgag gaaactcaga gtcggaacg agaaaggtg actggaagg gccgtggga gtcattcaca ccatccctc cgtggcata ccttaggcag ggaagtgtaa gaaacacact gaggcaggga agtccccagg cccaggaag ccgtgccccg cccccgtgag gatgtcactc agatggaacc gcagggaagt gctccgtgct tgttgctca cctggggtg gggaggcccg tccggcagt ctgggtgctc cctaccacct cccagcctt tgatcaggtg gggagtcagg gacccctgcc cttgtccac tcaagccaag cagccaagct ccttggagg ccccactgg gaaataacag ctgtggctca cgtgagagt tctcacggc aggacaacga ggaagcccta agacgtccct ttttctctg agtatctct cgcaagctgg gtaatcgatg gggagtcctg aagcagatgc aaagaggcaa gaggctggat ttgaaattt ctttttaata aaaaggcacc tataaaacag gtcaatacag tacaggcagc acagagaccc cggaaacaa cctaaaaatt gttcacaat aaaaaccaag aagatgtctt caaaaaaaa aaaaaaaa aaaa </p>	Homo sapiens
61	C-C Chemokine Receptor 1	NM_001295	735	<p> ggcagagcc cagaacaaa gacttcacgg acaagctccc ttggaaccag agagaagccg A ggatggaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg atgcaactcc gtgccagaag gtgaacgaga gggcctttgg gcccactg ctgccccctc tgtactcctt ggtattgtc atggcctgg ttggaacat cctgggtgct ctggtccctg tgcaatacaa gaggtaaaa aacatgacca gcatctacct cctgaacctg gccatttctg acctgtctt cctgttcacg cttcccttct ggtatcgacta caagtgaag gatgactggg tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg agatctttt catcatcctg ctgacgattg acaggtacct ggccatcgt cagccgtgt ttgccttgcg ggcacggacc gtcactttt gtgtcatcac cagcatcatc atttgggccc tggccatctt ggttccatg ccaggcttat acttttcaa gacccaatgg gaattcactc accacacctg cagccttcac ttctctcagc aaagcctacg agagtgggaag ctgtttcagg </p>	Homo sapiens

62	735	C-C Chemokine Receptor 1	NP_001286.1	<p>ctctgaaact gaacctcttt gggctgggtat tgcctttggt ggtcatgatac atctgctaca caggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt tgatttttgt catcatgac atcttttttc tcttttgag ccctacaat ttgactatac ttattctgt tttccaaagac ttctgttca ccatgagtg tgagcagagc agacatttg acctggctgt gcaagtgcg gaggatgac agtacctgc cctacagca ctgctgtgc aacctagtga tctacgctt cgttggtag aggttcgga agtacctgc gactttgtc cacaggcgtg tggtgtgca cctgggttaa tggctccct tctctccgt ggacaggctg gagagggtca gctccacatc tccctccaca gggagagcatg aactctctg tgggttctga ctcagaccat aggaggccaa cccaaaataa gcaggcgtga cctgccaggc acactgagcc agcagcctgg ctctccagc caggttctga ctctggcac agcatggagt cacagccact tgggatatag agggaatga atggtggcct ggggttctg aggttcttg agcaaaacca atattccag agactgggac actctcccc tggtagaaag agatgaatg gcaagatttc agatttgtga ccattagcat taagtgtacc agagaaggc ttggaactca ttggtgtgca aaccaattaa acccagtagt ttgtcaacaa agtcaaccac ttccactat tgcctgaca cctaagccat gggagacact gatgtatgag ggtgactgtg ggtccattc aaagtgagct cctccccc cccgccacc tccactgcc aagaacttg gaatttctgt tctccatca cctccccc actccactc ggtccaga gccaatcagt agccagcatc aaatagtgt tccacagt actccactc cgcagattt gggctcttg aatcctggg aacatagaac tgctccctt tcaactccc cgcagattt gggctcttg aatcctggg aacatagaac tcatgacgga agatttgaga cctaacgaga aatagaaatg ggggaactac tgctggcagt ggaactaaga agcccttag gaagaattt tatatccact aaatcaaac aattcaggga gtgggctaag cagggccat atgaataca tgggtgtgct cttaaaatag ccataaagg gaggactca cacttccat ttactctct ttctgacta ttttcagaa tctctctct tttcaagttg ggtgatatgt tggtagattc taatggcttt attgacgca ttaataacag gcaaaaggaa gcagggttg tttccctct tttgttctt catctaaagg tctgtgtttt atgggtcaga gttccgact ccatcttga cttgtcagca aaaaaaaa aaaaaa </p>	Homo sapiens
63	737	C-C Chemokine Receptor 3	NM_001837	<p>NP_001286.1 ctctgaaact gaacctcttt gggctgggtat tgcctttggt ggtcatgatac atctgctaca caggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt tgatttttgt catcatgac atcttttttc tcttttgag ccctacaat ttgactatac ttattctgt tttccaaagac ttctgttca ccatgagtg tgagcagagc agacatttg acctggctgt gcaagtgcg gaggatgac agtacctgc cctacagca ctgctgtgc aacctagtga tctacgctt cgttggtag aggttcgga agtacctgc gactttgtc cacaggcgtg tggtgtgca cctgggttaa tggctccct tctctccgt ggacaggctg gagagggtca gctccacatc tccctccaca gggagagcatg aactctctg tgggttctga ctcagaccat aggaggccaa cccaaaataa gcaggcgtga cctgccaggc acactgagcc agcagcctgg ctctccagc caggttctga ctctggcac agcatggagt cacagccact tgggatatag agggaatga atggtggcct ggggttctg aggttcttg agcaaaacca atattccag agactgggac actctcccc tggtagaaag agatgaatg gcaagatttc agatttgtga ccattagcat taagtgtacc agagaaggc ttggaactca ttggtgtgca aaccaattaa acccagtagt ttgtcaacaa agtcaaccac ttccactat tgcctgaca cctaagccat gggagacact gatgtatgag ggtgactgtg ggtccattc aaagtgagct cctccccc cccgccacc tccactgcc aagaacttg gaatttctgt tctccatca cctccccc actccactc ggtccaga gccaatcagt agccagcatc aaatagtgt tccacagt actccactc cgcagattt gggctcttg aatcctggg aacatagaac tgctccctt tcaactccc cgcagattt gggctcttg aatcctggg aacatagaac tcatgacgga agatttgaga cctaacgaga aatagaaatg ggggaactac tgctggcagt ggaactaaga agcccttag gaagaattt tatatccact aaatcaaac aattcaggga gtgggctaag cagggccat atgaataca tgggtgtgct cttaaaatag ccataaagg gaggactca cacttccat ttactctct ttctgacta ttttcagaa tctctctct tttcaagttg ggtgatatgt tggtagattc taatggcttt attgacgca ttaataacag gcaaaaggaa gcagggttg tttccctct tttgttctt catctaaagg tctgtgtttt atgggtcaga gttccgact ccatcttga cttgtcagca aaaaaaaa aaaaaa </p>	Homo sapiens

Homo sapiens

Homo sapiens

NP 001828.1 MTTSLDTVET FGTTSSYYDDV GLICEKADTR ALMAQFVPPL YSLVFTVGLL GNVVVWMILI P

Accession	Gene	Chromosome	Position (kb)	Sequence
65	NM_005508	C-C	738	cggggggtttt gatctctctt cctttctttt ctcccccttc ttctttctct cctccccccc A

tacagtatat	agctggaggc	attccacac	tctgagaatg	accatcttct	gtctcgttct
ccctctgctc	gttatggcca	tctgtacac	aggaatcatc	aaaacgtgc	tgaggtgccc
cagtaaaaaa	aagtacaagg	ccatccggct	cattttgtc	atcatggcg	tgtttttcat
ttttctggaca	ccctacaatg	tggctatcct	tctctcttc	tatcaatcca	tcttatttgg
aaatgactgt	gagcggagca	agcatctgga	cctggtcctg	ctggtgacag	aggtgatcgc
ctactcccac	tgtctcatga	acccggtgat	ctacgccttt	gttggagaga	ggttccggaa
gtactctcgc	cacttcttcc	acaggcactt	gctcatgcac	ctgggcagat	acatcccat
ccctctctagt	gagaagctgg	aagaagccag	ctctgtctct	ccatccacag	cagagccgga
actctctatt	gtgttttagg	tcagatgcag	aaaattgcct	aaagaggag	gaccaaggag
atgaagcaaa	cacattaagc	cttccacact	cacctctaaa	acagtcttc	aaacttccag
t	FGTTSYYDDV	GLLCEKADTR	ALMAQFVPL	YSLVFTVGLL	GNVVVMILI
	MYMTSLDVTET	LLFLVTLFPW	IHYVRGHNW	FGHGMCKLLS	GFYHTGLYSE
KYRRLRIMTN	IYLLNLAISD	ALRARTVTFG	VITSIVTWGL	AVLAALPEFI	FYETEELFEE
IFFIILLTID	RYLAIVHAVF	LRMTIFCLVL	PLLVMALCYT	GIKTLRLCP	SKKKYKAIRL
TLCSALYPED	TVYSWRHPHI	LSSYQSILFG	NDCERSKHL	LVMLVTEVIA	YSHCCMNPI
IFVIMAVFFI	FWTPYNNVAIL	LMHLGRYIPF	LPSEKLERTS	VSPSTAEPE	LSIVF
YAFVGERFRK	YLRHFFHRHL	ccctctctct	cttccccctc	ttctctctct	ctctccctcc
cggggggtttt	gatcttctct	ccctctctct	cttccccctc	ttctctctct	ctctccctcc
ctctctctatt	ccctctctct	ttctccctcag	ttctccacat	caacatctgac	aagtcccatc
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atctgtatga	aagtatcccc	aagccttgca	ccaaaagaag	catcaaggca	tttggggagc
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accttgccat	ctcggatctg	ctctctgtgt	ttctccctcc	tttttggggc	tactatgcag
cagaccagt	ggttttttgg	ctaggtctgt	gcaagatgat	ttctcggatg	tacttgggtg
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ttctcagctc	cctggaaaac	aacattctcg	gattgggtgat	cccttaggg	atcatgctgt
tttgcatact	catgatcatc	aggaccttgc	agcattgttaa	aaatgagaag	aagaacaagg
cggtgaagat	gatcttttgc	gtgggtgtcc	ttctccttgg	gttctgggaca	ccttacaaca
tagtgcctct	cctagagacc	ctgggtggagc	tagaagtcct	tcaggactgc	acctttgaaa
gatacttggg	ctatgccatc	cagggccacag	aaactctggc	ttttgttctc	tgctgcctta
atcccatcat	ctactttttt	gtgggggaga	aattctgcaa	gtacatctca	cagctcttta
aaacatccgc	gggccttttt	gtgctctgcc	aatactggga	gctcctccaa	atttactctg
ctgacacccc	cagctcatct	tacagcaggt	ccaccatgtg	tcatgatctt	catgatgctc
tgtaggaaaa	atgaaatggt	gaaatgcaga	gtcaatgaac	ttttccacat	tcagagctta
ctttaaaatt	ggtaatttta	ggtaagagat	ccctgagcca	gtgtcaggag	gaaggcttac
accacacagt	gaaagacagt	ttctcatcct	gcagggcagct	ttttctctcc	cactagacaa

66 738 C-C NP_005499.1 Chemokine Receptor 4 Homo sapiens

gtccagccctg gcaaggggtc acctgggctg aggcattcctt cctcacacca ggttgccctg
caggcatgag tcaagtctgat gagaactctg agcagtgcctt gaataagtt gaggtaata
ttgcaaggca aagactattc ccttctaacc tgaactgatg ggtttctcca gaggaattg
cagagtactg gctgatggag taaatcgcta ccttttgctg tggcaaatgg gcccccg
NMPTDIADTT LDESIYSNY LYESIPKPT KEGIKAFGEL FLPLYSLVF VGLLGNV P
VLVLFKYKRL RSMTDVYLLN LAISDLFVF SLPFWGYAA DQWVFGGLC KNISWMLVG
FYSGIFFVML MSIDRYLAIV HAVFSLRART LTYGVITSLA TWSVAVFASL PGFLFSTCYT
ERNHTYCKTK YSLNSTWKV LSSLEINILG LVIPLGIMLF CYSMIIRTLQ HCKNEKNKA
VKMIFAVVVL FLGFWTPYNI VLFLETLVEL EVLQDCTFER YLDYAIQATE TLAFVHCCLN
PIIYFFLGEK FRKYILQLFK TCRGLFVLQ YCGLLQIYSA DTPSSSYTQS TMDHDLHDAL

67 741 C-C NM_001838 Chemokine Receptor 7 Homo sapiens

gtgagacagg gtagtgca ggcggggcac agccttcctg tgtggtttta ccgcccagag A
agcgtcatgg acctggggaa accaatgaaa agcgtgctgg tgggtgctct ccttgctcatt
ttccaggat acctgtgtca agatgaggtc acggacgatt acatcgagga caacaccaca
gtggactaca ctttggttga gtctttgtgc tccaagaagg acgtgcggaa ctttaaaagcc
tggttcctcc ctatcatgta ctccatcatt tgtttcgtgg gcctactggg caatgggctg
gtcgtgttga cctatatcta ttccaagagg ctcaagacca tgaccgatac ctactgtctc
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gtccaggctg tctcagctca ccgccaccgt gcccgctgc ttctcatcag caagctgtcc
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gcctttatca ccataccaggt ggcacagatg gtgatcggtc ttctggtccc cctgctggcc
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aacaaggcca tcaaggtgat catcgctgtg tctgtggtct tcatagtctt ccagctgccc
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gagtcagta agcaactcaa catcgctac gacgtcacct acagcctggc ctgctccgc
tgctgcgtca accctttctt gtacgcttc atcggtcgtca agttccgcaa cgatctcttc
aagctcttca agacactggg ctgcctcagc caggagcagc tccggcagtg gtcttctgt
cggcacatcc ggcgtcctc catgagtgtg gaggccgaga ccaccaccac cttctccca
taggcgactc ttctgcctgg actagaggga cctctcccag ggtccctggg gtggggatag
ggagcagatg caatgactca ggacatcccc ccgccaaaag ctgctcaggg aaagcagct
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gctggagtga agggcccaag gagggtgagt gcaagggggc tggagtggtc ctgaagagt
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ccaggcctta tctccaagac cagagatagt ggggagactt cttggcttgg tgaggaaaa
cggacatcag ctggtcaaac aaactctctg aacctctcc tccatcgttt tcttactgt
cctccaagcc agcgggaatg gcagctgcca cggcgcccta aaagcacact catccctca
ctgcccgcgt cggcctccca ggtctctcaac agggagagat gtggtgtttc ctgcaggcca

Homo
sapiens

NP_001829.1

C-C
Chemokine
Receptor 7

741

68

ggccagctgc ctccgcgtga tcaaagccac actctgggct ccagagtggg gatgacatgc
 actcagctct tggctccact gggatgggag gagagacaa gggaaatgtc agggcgggg
 aggtgacag tggccgcca aggccacag cttgtctttt gttctttgtc acagggactg
 aaaccctc ctcagtctt gctttcgatt cgttaagaga gcaacatttt acccacacac
 agataaagtt ttcccttgag gaacaacag ctttaaaag
 MDLGPMSV LVVALLVIFQ VCLCQDEVD DYIGNTTVD YTLFESLCSK KDVRFKAWF P
 LPIMYSIICF VGLLGLV LVVYIFKRLK TMTDTYLLNL AVADILFLT LPFWAYSAAK
 SWFVGVHECK LIFAIYKMSF FSGMLLLLCI SIDRYVAIVQ AVSAHRHRAR VLLISKLSCV
 GIWILATVLS IPELLYSIDLQ RSSSEQAMRC SLITEHVEAF ITIQVAQMWI GFLVPLLLAMS
 FCYLVIIRTL LQARNFERNK AIKVIIIAVW VFIVFQLPYN GVVLQATVAN FNITSSTCEL
 SKQLNIAVDV TYSLACVRCC VNPFLYAFIG VKFRNDLFKL FXDLGLSQE QLRQWSSCRH
 IRRSSMSVEA ETTTTFSP

Homo
sapiens

AI733823

C-C
Chemokine
Receptor 8

742

69

TTTAAATTTA AAAACTTTAT TGAATAGCA TGTTAGCAGC AGTGAACAGG GCATGGCACA A
 GAAGTTTCC AAAACAAGT TAGCATGAAG GATGCCATAT GCTGTTGCCA ACAACTAGAA
 CACGGTGACT AAAGACACAG TTCTGAATGT CCAGCACAAAC CTCGTGGCTG CAACTATGTT
 CAGTGATGAT GATAAACAAAG GTGGTGACTT GGAAGGAATC CCTATGTCAA GTGAGAAAAA
 AAAATGATGT CTGACCTCCT TATATATGTA AAAATATATC CTTCAGAGTC CGTCAGTAAG
 CTGGAAGAAG TGGATGTTGA AGTTTTTAAC ATCGATGATG GGTCTCCAGT TGTTTCATCAA
 CCCATGGTGA AATAGCTGAA CGGTCTGAA TCAAGAGTGA TCCTAATAGT GAAGACATTA
 ACATTGCAGA AAAAGTGCCT ACAGATTATA TGGTGAATAT ACCTGATGGG CTTCTTTGAA
 GACTAGAGCA GTGTGTATTC AAAACAGAAC AAGAAATCAC GTCAGTTTAT
 TGCCAAATAT GCTGTTGCCA ACACCTAGAA CACAATGACT GGAGACACAG TTGTGCGTGC A
 CTGGCACAAAC CTCGAGCTG TGCTATGTT CAGTGATGAT GATGACCAAG GTGGTGACTT
 TGAAGGATTT TGTATATCAA GTGAAAGAA ATGATATCTG ACCTCCTTAC ATATCTAAAA
 CATATACCTT CAAATCCAT CAAATAGCTG AAAGAAATAG ATATCAAGA ATATTTTAAAC
 ATCATTAATG AGGCTCCAGT TATTCATTC A TTGACCAATG GTAATATAGC TGAATGATT
 CTGAATCAAG CTGATTATGA TAATAGTATGAT GATGAAGATG ATGTTAATAC TGCAGAAAAA
 GTGCCTATAA ATGACACAGT GAAA

Homo
sapiens

LG6770

C-C
Chemokine
Receptor 8

742

70

ctccagagag gctgctgctc attgagctgc actcacatga ggatacacagc tttgtgaaga A
 aggaattggc aacactgaaa cctccagaac aaaggctgtc actaaggctc cgctgccttg
 atggattata cacttgacct cagtgagaca acagtgaccg actactacta ccttgatatac
 ttctcaagcc cctgtgatgc ggaacttatt cagacaaatg gcaagtgtgt ccttgctgtc
 ttttattgcc tctgtttgt attcagttct ctgggaaaca tcttggttcat cctggctcctt
 gtgtctgca agaagctgag gagcatcaca gatgtatacc tcttgaaact ggcctgtctt
 gacctgttt ttgtcttctc ctccccctt cagacctact atctgtgga ccagtgggtg
 ttgggactg taatgtgcaa agtgggtgtc ggcttttatt acattggctt ctacagcagc
 atgtttttca tcacctcat gagtgtggac aggtacctgg ctgtgtgtcca tggctgtgtat
 gccctaaagg tgaggacgat caggatggc acaacgctgt gcctggcagt atggctaacc
 gccattatgg ctaccatccc atgtctagt ttttaccagg tggcctctga agatgggtgtt
 ctacagtgtt attcatttta caatcaacag actttgaagt ggaagatctt caccacttc
 aaaaatgaaca ttttaggctt gttgatccca ttcaccatct tttatgttctg ctacattaaa

Homo
sapiens

NM_005201

C-C
Chemokine
Receptor 8

742

71

72	C-C Chemokine Receptor 8	NP_005192.1	742	atctgcacc agctgaagag gtgtcaaac cacaacaaga ccaaggccat caggttgggtg ctcattgtgg tcattgcatc ttacttttc tgggtcccat tcaacgtggt tcttttccctc acttccttgc acagtatgca catcttgat ggatgtagca taagccaaca gctgacttat gccaccatg tcacagaaat catttcttt actcactgct gtgtgaacc ttgtatctat gcttttgtg gggagaagt caagaacac ctctcagaaa tattcagaa agttgcagc caaatcttca actacctagg aagacaaatg cctagggaga gctgtgaaaa gtcacatcc tgccagcagc actcctccc ttctccagc gtagactaca ttttggagg atcaatgaag actaaatata aaaaacattt tcttgaatgg catgctagta gcagtggca aaggtgtggg tgtgaaaggt ttccaaaaa agttcagcat gaagatgcc atatatgtg ttgccaacac ttaaacaca atgactggag acatagtgt gcatgcctgg cacaacatca agcctgtgat tgtgtttatt gatgatgtg acaagtgtg aactttaaa gttctgtat gccaaagtga aaaaaagat gctgacctc ctcatatgc aaaaatatac ctccagagac gtcagtagg ctggaagaag tggatatgga agttttgaca tcaatgatga ggtcccagtt gtctatgcat tgactgatg tgaatggct ggagtgttc tgaatcaagg tgattgtgat tatagtaca atgaagatga tgctattaat actgcataaa aagtgcctgt agatgacatg gtgaaaatat ttgacaggct tatggaagga ctacagcagc agcattcat aacagaacaa gaaattatct cagcttataa aatcaaacag agacttctag acaaaaacca ttgttgatga gccagatgcc tctagaagag acgtttaaaa gccatcaaac acaatgcctc atcttccctg gagagccac ttcctgatcc ctcaactgtg tctgatgtt ctctcatgt aagaaataaa aaataaaaaat aaaaaaatat atattggtat gtaactacag gaaaaataa aaaaatatat agtgacagt aacctttcaa tcaaaactca gtatcataag tagagactga aaactgccc ttattgattg ttgttattaa cagctgatac aggtattctg ctgatgttac tgctgcttag ttaccatgaa cacgtttttt cactattaat ggtgcgtcat attttttact tttaaagtact tacgtgtgag taagtgaag aaaaatgattg cttatcagta gtatcaatga ttactcaat atctgaatca ccttgattca gaaccattc agctgtttca ccatcagtc atgaataaca gcctcattga tgtcaaaaac ttcaatatcc acttctttca gctactgta gactctgga gtatacttt tgcatatgta aggaagtcag atttttttt	LGNSLVILVL P FYCLLFVFSL FGTMCKVVS GFYIIGFYSS AIMATIPLLV FYQVASEDGV ILHQLKRCQN HNKTKAIRLV ATHVTEIISF THCCVNPVY CQHSRSSSS VDYIL accagcaccc accagcagc cagagcacca A accagcaccc accagcagc cagagcaccc accagtgct aaatgacgc gaggttgcg aaatgagag aaacagagat gactcgtgt gactgaaactt cgaccgggccc ttctgcccag tgctggggcaa cggcgcggtg gcagccgtgc cctgtctccac cctgtctccac ctactgttag ggacgctgcc gtccagtggg gtgcccctctg aagtgggcag gtgcccctctt caacatcaac ttctacgcag	Homo sapiens
73	CXC Chemokine Receptor 3	NM_001504	752	MDYTLDSVT TVTDYYYPD FSSPCDAELI QTNCKLLILAV VCKKLRST DVYLLNIALS DLLEVSFPF QTYVLLDQWV MFFITLMSVD RYLAHVHAY ALKVRTIRMG TTLCLAVMLT TLKWKIFTNF KMNILGLLIP FTIFMFCYIK WPFNVVLFL TSLHSMHILD GCSISQQLTY I SEIFQKSCS QIFNYLGRQM PRESCEKSSS gcacaccaa gcacaccaa agaggggagc ggcagcccat ggtccttag gtgagtgc accaagtgt aaatgacgc gaggttgcg ccctcctgga gaacttcagc cttctctatg actatggaga aaacagagat gactcgtgt gtacctccc gccctgccc caggacttca gctgaaactt cgaccgggccc ttctgcccag ccctctacag cctctcttt ctgctggggc tgctggggcaa cggcgcggtg gcagccgtgc tgctgagccg gcggacagcc ctgagcagca cgcacacctt cctgtctccac ctactgttag cagacacgct gctgggtgctg acactgccgc tctgggcagt ggacgctgcc gtccagtggg tcttttgctc tggcctctgc aagtgggcag gtgcccctctt caacatcaac ttctacgcag	LGNSLVILVL P FYCLLFVFSL FGTMCKVVS GFYIIGFYSS AIMATIPLLV FYQVASEDGV ILHQLKRCQN HNKTKAIRLV ATHVTEIISF THCCVNPVY CQHSRSSSS VDYIL accagcaccc accagcagc cagagcacca A accagcaccc accagcagc cagagcaccc accagtgct aaatgacgc gaggttgcg aaatgagag aaacagagat gactcgtgt gactgaaactt cgaccgggccc ttctgcccag tgctggggcaa cggcgcggtg gcagccgtgc cctgtctccac cctgtctccac ctactgttag ggacgctgcc gtccagtggg gtgcccctctg aagtgggcag gtgcccctctt caacatcaac ttctacgcag	Homo sapiens

74	CXC Chemokine Receptor 3	NP_001495.1	<p>gagccctcct gctggcctgc atcagctttg accgctacct gaacatagtt catgccaccc agctctaccg ccggggggccc ccggcccgcg tgacctcac ctgctgggt gtctggggg tctgctgct ttgcgccc cagacttca tcttctgtc ggccaccac gacgagcgc tcaacgccac ccactgcaa tacaacttc ccgactggg ccgacggct ctgcggtgc tgacgtggt gctggcttt ctgctgccc tgcgtgcat gcctactgc tatgccaca tctggccgt gctgctggt tccagggccc agcgcgccat gcgggcatg cggctggtg tggtggtcgt ggtggcctt gcctctgct ggaccccta tcactgggt gtgctggtg acatctcat ggacctggc gctttggccc gcaactggt ccgagaaag aggtagacg tggcacaagc ggtcacctca ggcctgggt acatgactg ctgctcaac ccgtgctct atgctttgt aggggtcaag ttccgggagc gcatgtgat gctgctttg cgcctgggt gccccacca gagaggctc cagaggcagc catgctctc ccgceggat tcactcctgt ctgagacctc agaggctcc tactcgggt tctgaggccg gaatccggc tccctttcg ccacagctc gacttccc cctccaggc tctcctcc cctgcccgc tctgctctc cccaatacc tgcctccc gactcactg gacccaggc accacaggt cctccggga gccacctcc cagctctgag gactgacca ttgctgccc ttagctgcca agccccatc tgccggccga ggtgctgctc tggagcccca ctgcccctt catttgaaa ctaaaactc atcttcccc agtgcgggga gtacaaggca tggcgtagag ggtgctgccc catgaagcca cagccaggc ctccagctca gcagtactg tggccatggt ccccaagacc tctatattg ctcttttatt tttatgtca aaatcctgt taaaacttt caataacaa gatcgtcagg acaaaaaa aaaaaaaa aaaaaaaa aaaaaaaa aaaaaaaa MVEVSDHQV LNDAEVALL ENFSSYDYG ENESDSCCTS PPCQDFSLN FDRAFLPALY P SLLFLGLLG NGAVAAVLLS RRTALSSTDT FLHLAVADT LLVLTPLWA VDAAVQWVFG SGLCKVAGAL FNINFYAGAL LLACISFDY LNIVHATQLY RRGPPARVTL TCLAWGLCL LFALPDFIFL SAHDERLNA THCOYNFPQV GRTALRVQL VAGFLPLLV MAYCYAHILA VLLVSRGQRR LRAMRLVVV VVAFALCWTP YHLVVLVDIL MDLGALRNC GRESRVDVAK SVTSLGYMH CCLNPLLYAF VGVKFRERMW MLLRLGCPN QRLQRPSS SRRDSSWSET SEASYSGL</p>	Homo sapiens
75	CXC Chemokine Receptor 4	NM_003467	<p>gtttgttggc tgcggcagca ggtagcaaa gtagccgag ggctgagtg ctccagtagc A caccgatct ggagaaccag cgtttaccat ggaggggatc agtatataa cttcagataa ctacaccgag gaaatgggct caggggacta tgactccatg aaggaacct gttccgtga agaaaatgct aatttcaata aaattctct gccaccatc tactccatca tcttcttaac tggcattgtg ggcaatggt tggctatcct tggctatggt taccagaaga aactgagaag catgacggac agtacaggc tgcacctgtc agtggccgac ctccctcttg tcatcacgt tccctctgg gcagtgtat cegtggcaaa ctggtacttt gggaacttcc tatgcaaggc agtccatgtc atctacacag tcaactcta cagcagtgtc ctcactcttg ccttcacag tctggaccgc tacctggcca tgcctcagc caccacagc cagagccaa ggaagtgtt ggctgaaaag tgggtctat tggcgtctg gatccctgc ctctgctga ctattcccc cttcatcttt gccaacgtca gtgaggcaga tgacagatat atctgtgacc gcttctacc caatgacttg tgggtggtg tgttccagtt tcagcacatc atggttgcc ttatctgcc tggtattgtc atctgtcct gctattgat tatcatctc aagctgtcac actccaagg ccaccagaag cgaaggccc tcaagaccac agtcatcctc atctgggtt tcttgcctg</p>	Homo sapiens

76 753 CXC NP_003458.1 Chemokine Receptor 4 Homo sapiens

ttggctgcct tactacattg ggatcagcat cgactccttc atctcctgg aaatcatcaa
gcaagggtgt gagtttgaga acactgtgca caagtggatt tccatccagg aggccttagc
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ttgtcttgtg tttcttttagt ttttgtgaag ttttaattgac ttatttatat aaattttttt
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agtgttatag aaatgctggt ttttcagttt tcaggagtgg gttgatttca gcaactacag
tgtacagtct tgtattaagt tgttaataaa agtacatgtt aaacttactt agtgttatg
tgtacagtct

77 755 Complement NM_004054 Component 3a Receptor 1 Homo sapiens

atggcgctct tctctgctga gaccaattca actgacctac tctcacagcc atggaatgag A
ccccagtaa tctctccat ggtcattctc agccttactt ttttactggg atgcccaggc
aatgggctgg tctgtgggt ggctggcctg agatgcagc ggacagtga cacaatttgg
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tctatctgtg gatgtatctg ggtggtgggt tttgtgatgt gcatcctgt gttcgtgtac
cgggaaatct tcactacaga caaccataat agatgtgggt acaaatgttg tctctccagc
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ttccgaatgc aaaggggccc cttcgccaag tctcagagca aaaccttctc agtggcgtg
gtgggtgtg ctgtcttct tgtctgtgtg actccatacc acatttttgg agtccctgca
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78 Complement NP_004045.1 MASFAETNS TDLLSQPWE PPVILSMVIL SLTELLGLPG NGLVLWVAGL KMORTVNTIW P Homo sapiens
Component 3a
Receptor 1

attgctctag catctgcaa tagtgcttt aatcccttc tttatgcct cttggggaaa
gatttagga agaaagaaag gcagtcatt cagggaattc tggaggcagc cttcagtgag
gagctcacac gttccaccca ctgtccctca aacaatgtca tttcagaaa aatatgtaca
actgtgtga

Homo sapiens

79 Complement NM_001736
Component 5a
Receptor 1

Homo sapiens

agggggagcc caggagacca gaacatgaac tcttcaatt ataccacccc tgattatggg A
cactatgatg acaaggatac cctggacctc aacacccctg tggataaaac ttctaacacg
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ttttcacttc acttttctg gtaggtgtgtt accttagcta actaactctc ctccatgttg
cctgtcttcc ccagacttgt cctccttctt ccagcgggac tcttctcact cttcctcatt
tgcaagggtga acacttctt ctaggagga ccttccccc cccaccccc cccacacac
catctttcca tcccaggctt ttgaaaaa aacagaaacc cgtgtatctg ggatatctcc
atatggcaat aggtgtgaac agggaaactca gaatacagac aagttagaag atttctgctt
aaaaaaatgt attatttta tggcaagtgg gaaaatatgt aactgggaatc tcaaaagtcc
tttgggacaa aacagaagtc catggagtta tctaagctct tgtaagttag ttaattttaa
aaagaaaatt aggtgagag cagtggctca cgcctgtaat cccagaactt tgggaggcta
aggtgggtgg atcacctgag gtcaagagtt ccagaccagg ctggccagca tgggtgaacc

80	758	Complement Component 5a Receptor 1	NP_001727.1	<p> cgtctgtac taaaaatata aaaaataaac tgggcatggt agtgggtgcc tgtaatccca gctactggg aggtcaggt ggagaaattg ctgcgaacctt ctgcaggtgag gttgtggtga gccatgatcg caccactgca ctctagcctg ggtgacccag ggaggtcttg tctcaaaaagc aaagcaaaaa caaaaacaaa aacacctaaa aaacctgcag tttgtttgt actttgtttt taaatatgc tttctattt gagatcattg caaactcaac acaattgtaa gtaatgatac agagggatct tgtgtacct tcaccagcc tcccctaatg gcaacatctt gcaaaactac aatgtagtct cataaccagg atattgacat tgatacagtg aagatacagg acattctcat caccacaggg atccccagga tgcccacttc cctccacccc cacaccccag ccgtgtccct aaccctggc aaccaggaaat ccactctcca tttctataat gttgtcattt caagaatgtt attcaatgga atcatatagt atgtaacctg ttttgagctt aaaaaaaaaa gtatacatga ctttaatgag gaaaataaaa atgaatatg aaaaaaaaaa ctttagag MNSFNYYTPD YGHYDDKDTL DLNTPVDKTS NTLRVPDILA LVIFAVVFLV GVLGNALVVW P VTAFEAARTI NAIWFLNLAV ADFLSCLALP ILFTSIVQHH HWPFGGAACS ILPSLILLNM YASILLIATI SADRELLVFK PIWCQNERGA GLAWIACAVA WGLALLLTIP SFLYRVVREE YFPPKVLGCV DYSHDKRRER AVAIVRLVLG FLWPLLLITI CYTFILLRTW SRRATRSTKT LKVVAVVAS FFIFWLPYQV TGIMMSFLEP SSPTFLLLNK LDSLCVSEFAY INCCINPIIY VWAGQGFQGR LRKSLPSLLR NVLTEESVVR ESKSFRSTV DTMAQKTQAV </p>	Homo sapiens
81	767	Calcitonin Receptor-like Receptor	NM_005795	<p> gcacgagggg acaacctctc tctctscagc agagagtgtc acctcctgct ttaggacctat A caagctctgc taactgaatc tcatcctaata tgcaggatca cattgcaaaag ctttcaactct ttcccacctt gcttggtgggt aaatctcttc tgcggaatct cagaaagtaa agttccatcc tgagaatatt tcacaaagaa tttccttaag agctggactg ggtcttgacc cctggaattt aagaaattct taaagacaat gtcaaatatg atccaagaga aaatgtgatt tgagtctgga gacaattgtg catatcgtct ataataaaaa acccatacta gcctatagaa acaaatattt gaataataaa aaccatact agcctataga aacaataatt tgaagattg ctaccactaa aaagaaaact actacaactt gacaagactg ctgcaaaactt caattggtca ccacaacttg acaaggttgc tataaaacaa gattgctaca acttctagt tttatgttatc agcatatttc attgggctt aatgatggag aaaaagtga cctgtattt tctgggtctc ttgccttttt ttatgattct tgttacagca gaattagaag agagtctctga ggactcaatt cagttgggag ttactagaaa taaatcatg acagctcaat atgaatgta ccaaaagatt atgcaagacc ccattcaaca agcagaaggc gtttactgca acagaacctg ggatggatgg ctctgctgga acgatgttc agcaggaact gaatcaatgc agctctgccc tgattacttt caggactttg atccatcaga aaaagttaca aagatctgtg accaagatgg aaactgggtt agacatccag caagcaacag aacatggaca aattataccc agtgaatgt taacaccccac gagaagtga agactgcact aaattgttt tacttgacca taattggaca cggattgtct attgcatcac tgcttatctc gcttggcata tttttttatt tcaagacct aagttgccaa aggattacct tacacaaaaa tctgttcttc tcatgtttt gtaactctgt tgtaacaatc attcaacctca ctgcagtggc caacaaccag gccttagtag ccacaaatcc tgttagttgc aaagtgtccc agttcattca tctttacctg atgggctgta attacttttg gatgctctgt gaaggcattt acctacacac actcattgtg gtggccgtgt ttgcagagaa gcaacattta atgtgttatt atcttcttgg ctggggattt ccaatgattc ctgcttctat acatgccatt gctagaagct tatattacaa tgacaattgc tggatcagtt ctctctctac tctctctac attatccatg </p>	Homo sapiens

82	767	Calcitonin Receptor- like Receptor	NP_005786.1	<p>gccccaaatttg tgctgcttta ctggtgaatc tttttttctt gttaaatatt gtacgcgttc tcatcaccaa gttaaaagtt acacaccaag cggaatccaa tctgtacatg aaagctgtga gagctactct tatcttggtg ccattgcttg gattgcttg actacatcat gcacatcctt atgcacttcc ctgaagaaaa gattgcagag gaggtatatg aggtctacc attttctgct tctttaatgg agaggttcaa gcaattctga agggctctttt ggctctacc attttctgct tctttaatgg aggtctacc attttctgct tctttaatgg agaggttcaa gcaattctga gaagaaactg gaatcaatc aaaaatccaa ttggaacag cttttccaa tcagaagctc ttcgtagtgc gtcttacaca gtgtcaaca tccatgatat tgaatattgt cttttaaaac gtcctagtga acacttaaat ggaataagca atggtgtgct cactgttttg tgccttctct cagaaaattt atataattga aatagaagg atggtgtgct cactgttttg tgccttctct aactcaagga cttggacca tgactctgta gccagaagac tccaatatta aatgactttg gggaatgtca taaagaagag ccttcacatg aaattagtag tgtgttgata agagtgtaac atccagctct atgtgggaaa aaagaaatcc tggttgtgaa tgtttgtcag taaatactcc cactatgcct gatgtgacgc tactaacctg acatcaccaa gtgtggaatc ggagaaaagc acaatcaact tttctgagct ggtgtaagcc agtccagca caccattgat gaattcaaac aaatggctgt aaaactaac atcatgttg ggcattgctc taccattat cscctcaaga gacctagcta aggtctataa acatgaagg aaaattagct tttagtttta aaactcttta tcccatcttg attggggcag ttgacttttt tttttccca gagtgccgta gtcctttttg taactaccct ctcaaatgga caataccaga agtgaattat cctgctggc tttcttttct ctatgaaaag caactgagta caattgttat gatctactca tttgctgaca catcagttat atcttgctggc atatccattg tggaactgg atgaacagga tgtataatat gcaatcttac ttctatatca ttaggaaaa atcttagttg atgctacaaa acacctgtc aaactcttcc tgtcttacca aacagtggga gggaattcct agctgtaaat ataaaatttg ccttccatt tctactgtat aaacaaatta gcaatcattt tatataaaga aaatcaatga aggatttctt atcttcttg aattttgtaa aaagaaattg tgaaaaatga gcttgtaaat actccattat tttatattat agtctcaat caaatacata caacctatgt aatttttaa gcaaatatat aatgcaacaa tgtgtgtatg ttaatatctg atactgtatc tgggctgatt ttttaataaa aataagctct ggaatgct</p>	Homo sapiens
83	832	Cannabinoid Receptor 1	NM_001840	<p>MEKKTLYFL VLLPFFMILV TAELEESPED SIQLGVTRNK IMTAQYECYQ KIMQDPIQQA P EGVYCNRTWD GWLCWNDVAA GTESMQLCPD YFQDFDPSEK VTKICDQDGN WFRHPASNRT WTNYTQCNVN THEKVTALN LFYLTIGHG LSIASLLISL GIFFYFKSL CQRITLHKNL FFSFVNSVW TIIHLTAVAN NOALVATNPV SKVSQFIHL YLMGCNMFWM LCEGIYLTLL IVVAVFAEKQ HLMWYFLGW GFPLIPACIH AIARSLYND NCWISSDTHL LYIHPICA ALLVNLFFLL NIVRVLITKL KVTHQAESNL YMKAVRATLI LPVLLGIEFV LPWRPEGKI AEEVYDYIMH ILMHFQGLLV STIFCFNGE VQAILRRWN QYKIQGNSF SNSEALRSAS YTVSTISDGP GYSHDCPSEH LNKSIHDIE NVLLKPENLY N ggggactacg gagagctctg caggagccg agggcccccgc ccgggccaaag ggagcttctg A tcccaggagc caggagatgc gaaggattg cccctgtgag gtcactttct cagtcatttt gagctcagcc taatcaaga ctgaggttat gaagtgcac tagatggcc ttgcagatac cacctccgc accatcacca ctgacctcct gtacgtgggc tcaaatgaca ttcagtagca agacatcaaa ggtgacatgg catccaaat agggctactt ccacagaaat tcccttaac ttccttagg ggaagtcct tccaagagaa gatgactgag ggagacaacc ccagctagt</p>	Homo sapiens

84	Cannabinoid Receptor 1	NP_001831.1	<p> caccagcagac caggtgaaca ttacagaatt ttacaacaag tctctctcgt ccttcaagga gaatgaggag aacatccagt gtggggagaa cttcatggac atagagtgtt tcatgtctct gaacccacag cagcagctgg ccattggcagt cctgtccctc agctgggca ccttcacggg cctggagaac ctctgtgtgc tgtgctgcat cctccactcc cgcagctccc gctgcaggcc ttctaccac ttcatcgga cctggcggt ggcagacctc ctggggagtg tcatttttgt ctacagcttc attgacttc acgtgtcca ccgcaaatg agcggcaacg tgtttctgtt caaatgggt ggggtcacg cctcctcac tgcctcctg ggcagcctgt tctcacagc catcagacag tacatatcca ttacagggcc cctggcctat aagaggattg tcaccaggcc caaggccgtg gtggcgtttt gctgatgtg gaccatagcc attgtgatcg ccgtgctgccc tctcctgggc tggaactgc agaaactgca atctgtttgc tcagacattt tcccacacat tgatgaaccc tacctgatgt tctggatcgg ggtcaccagc gtactgcttc tgttcacgt gtatgcgtac atgtatatc tctggaaggc tcacagccac gccgtccgca tgattcagcg tggcaccacg aagagcatca tcatccacac gtctgaggat ggaagggtac aggtgacccg gccagaccac gccgcaggt acattaggtt agccaagacc cctgtcctga tctgtgtgt gttgatcatc tctggggcc cctgtgtgc aatcatggtg tatgatgtct ttgggaagat gaacaagctc attaagacgg tgtttgcat ctgcagatg ctctgcctgc tgaactccac cgtgaacccc atcatctatg ctctgaggag taaggacctg cgacacgctt tccggagcat gttccctct tgtgaaggca ctgcgcagcc tctggataac agcatggggg actcggactg cctgcacaaa cagcaaaa atgcagccag tgttcacagg gccgcagaaa gctgcatcaa gagcaggtc aagattgcca agttaacct gtctgtgtcc acagacacgt ctgccgaggg tctgtgagcc tgatgcctcc ctggcagcac aggaagaaa tttttttt taagctcaaa atctagaaga gtctattgtc tcttggtta tttttttt actttaccat gctcaatgaa aaggtgattg ccacatgtca cttattgtct tagttccgt ttgggctaatt ctccgggggt tcgtaggaaa ccttt </p>	Homo sapiens
832			<p> LVYGSNDIQY EDIKDMASK LGYFPQKFPL TSFRSPFQE P KMTAGDNPQL VPADQWITE FYNKSLSEFK ENEENIQCE NFMDECFMV LNPSQQLAIA VLSLTGTF VLENLLVLCV ILHSRSLRCR PSYHFIGSLA VADLLGSVIF VYSFIDFHVF HRKDSRNVEL FKLGGVTASF TASVGSLELT AIDRYISHR PLAYKRIVTR PKAVVAFCLM WTIAIVIAVL PLLGNCEKL QVCSDFPH IDETVLMFWI GVTSVLLLF VYAYMYILWK AHSHAVRMIO RGTQKSIH TSEDGKVQVT RPDQARMDIR LAKTLVLILV VLIICWGPLL AIMVYDVFGK MNKLIKTVFA FCSMLCLNS TVNPIIYALR SKDLRHAERS MFPSCEGTAQ PLDNSMGDSD CLHKHANNA SVHRAAESC KSTVKIAKVT MSVSTDTSAE AL </p>	
85	Cannabinoid Receptor 2	NM_001841	<p> caggtctctgg gagaggacag aaaaacactg gactcctcag cccccggcag ctcccagtc A ccagccacc acaacacac ccaagcctt ctagacaagc tcagtggaa ctgaaggccc caccocatgg aggaatgctg ggtgacagag atagccaatg gctccaagga tggcttgat tccaaccta tgaaggatta catgatcctg agtgggtccc agaagacagc tgttctgtg ttgtgactc ttctgggct gctaaatgccc ctgggaacg tggctgtgct ctatctgac ctgtcctccc accaactccg ccggaagccc tcatacctgt tcattggcag ctggctggg gctgacttc tggccagtgt ggtctttgca tgcagctttg tgaatttcca tgtttccat ggtgtggatt ccaaggctgt ctctctgctg aagattggca gcgtgactat gacctcaaca gcctctgtgg gtacccctc gctgaccgcc attgaccgat acctctgct gcgctatcca </p>	Homo sapiens

86	Cannabinoid Receptor 2	NP_001832.1	<p>ccttctctaca aagctctgtct caccctgtgga agggcactgg tgacccctggg catcatgtgg gtcctctcag cactagtctc ctacctgccc ctactgggat ggacttgctg tccaggccc tgctctgagc tttcccaact gatcccaat gactactgc tgagctggct cctgttcac gccttctctc tttccggaat catctacacc tatggcctg tttctctggaa ggcctcatcag catgtggcca gcttgctgg ccaccaggac aggcaggtgc caggaatggc ccgaatgagg ctggatgtga ggttgggcaa gacctaggg ctagtgttg ctgtgctcct catctgtgg ttcccaagtc tggccctcat ggcccacagc ctggccacta cgtcagtga ccaggtcaag aaggcctttg ctttctgctc catgtgtgc ctcatcaact ccatggtcaa cctgtctatc tatgtctac ggagtggaga gatccgctcc tctgcccac actgctggc tcaactggaag aagtgtgtga gggcccttgg gtcagaggca aaagaagaag cccgagatc ctcatgcacc gagacagagg ctgatggaa aatcactccg tggccagatt ccagagatct agacctctc gattgctgat gaggcctctt cccaatttaa acaactcaag tcagaaatca gttcactccc tggaagagag agagggtct tggcactctc ttctactta aaccagtccc agacacctag acacggaccc ctttttgcgt atgagtgtt ggactgactc ctggaagaca gcctggcctt gcccacctgc acacagctg ttggataggt agggccacga ggaatagcca ggtaggcgag acacaaaaag ccctgggaca ggtcagtagc aagtcaggac aggttcatg cctgcatcct ccagagacca ccaggagcca aaggagcct ccaggcccag caatgaggga cttgggagaa atctgagaag aatgggtgt tctcttggga agtcaggga tcagatggga tggacatcca ggtcttctct ctgctaatt gtcaaggcct ccttggtctt ggagctatga aagggccac tttcaagtca ccttgccac tggagaccga ggactatgct atgatgaggga ttaaggtgtt gacttgctc tttcagagat aaatgacaa ccttca</p>	Homo sapiens
87	Leukocyte Antigen CD97	NM_001784	<p>SHQLRRKPSY LFIGSLAGAD FLASVVFACS FVNFHFHGV DSKAVFLKI GSVTMTFTAS VGSLLTAID RYLCLRYPPS YKALLTRGRA LVTLGIMWVL SALVSYLPLM GWTCPPRPCS ELFPLIPNDY LLSWLLFI AF LFSGIITYG FVLMKHAQHV ASLSGHQDRQ VPGMARMLD VRLAKTLGLV LAVLLICWFP VLALMAHSLA TTLSDQVKA FAFCSMLCLI NSMVNPVIYA LRSGEIRSSA HHCLAHWKKC VRGLGSEAKE EAPRSSVTET EADGKITPWP DSRDLDSLDC agcctgtgga gacgggacag ccctgtccca ctcaactctt cccctgcgc tctgcccgc A agctccaacc atgggagcc gcgtcttct cgcattctgt gtctggctga ctctgcccgg agctgaaacc caggactcca ggggtgtgc ccggtgtgc cctcagaact cctcgtgtgt caatgccacc gcctgtcgt gcaatccagg gttcagctct ttttctgaga tcatcaccac cccgacggag actgtgacg acatcaacga gtgtgcaaca ccgtcgaaa gtcatgccc aaaattctcg gactgctga acacagagg gagctacgac tgcgtgtgca gcccgggata tgagcctgtt tctggggcaa aaacattcaa gaatgagagc gagaacacct gtcaagatgt ggacgagtgc agtccgggc agcatcagt tgacagctcc accgtctgt tcaacacct gggttcatac agtgcctg ccgcccagg ctggaagccc agacacggaa tcccgaataa ccaaaaggac actgtctgt agatatgac tttctccacc tggaccccgc cccctggagt ccacagccag acgcttctcc gattcttcca caaagtccag gacctgggca gagactccaa gacaagctca gccgaggtca ccattccaga tgtcatcaa ttggtggatg aactgatgga agctcctgga gactagagg cctgggccc acctgtccc cactcatag ccacccagct gctctcaaac cttgaagata tcatgaggat cctggccaag agcctgccta aagggccctt</p>	Homo sapiens

88	922	Leukocyte Antigen CD97	NP_001775.1	<p> cactacatt tcccttcga acacagagct gacctgatg atccaggagc ggggggacaa gaacgtcact atgggtcaga gcagcgacg catgaagctg aattggctg tggcagctgg agccaggat ccaggcccc ccgtggcggg catctctcc atccagaaca tgacgacatt gctggccaat gcctccttga acctgcattc caagaagcaa gccgaactgg aggagatata tgaagcagc atccgtggtg tccaactcag acgcctctct gccgtcaact ccactcttct gagccacaac aacaccaag aactcaactc ccccatcctt ttgccttct cccacttga gtctccgat ggggaggcg gaagagacc tctgccaag gactgatgc ctggggccacg gcaggagctg ctctgtgctt tctggaagag tgacagcgac agggaggggc actggggccac cgaggtctgc caggtgctgg gcagcaagaa cggcagcacc acctgccaat gcagccacct gagcagcttt acgatactta tggctcatta tggcgtggag gactggaagc tgacctgat caccagggtg gactggcg gcactcctt tgcactctt caccatacac ctgcacctc gcactgcct gtggtgctgg cccatccagg gctgcgcac catcgagaac gaaggcgcc aggtggggct ctctgtggc tccaccatct tctggcgcg gctgtgtgca ctactgttct ctggcgctt gcctgcgcg ctggtggcg gctgtgtgca ctactgttct ctggcgctt tctgtgtgat gagctcgaa ggcctggag tctacttct tgggtgtgca ggtttccaa ggcaggcct gagtacgcg tggctctgc tgatcgcta tggcgtgccc ctgctcatcg tggcgtctc ggctgccatc tacagcaag gctacggcg cccagatgc tgctggttg actttgagca gggtctctc tggagcttct tgggacctgt gacctcatc atttgtgca atgtgtcat ttctgtgact accgtctgga agctcactca gaagtcttct gaaatcaatc cagacatgaa gaaattaaag aaggcgagg cgctgacct cagggccatc gcgcagctct tctgtgtggg ctgcacctgg gtctttggc gtctcatct tgcagatcg agcttggtgc tgacctatgt gtttaccatc ctcaactgcc tgcaggcg cttcctctac ctgctgcact gctgctcaa caagaagggt cgggaagaat accggaagt ggcctgccta gtgctgggg ggaagcaagta ctcagaatc acctccaca cgtctggcac tggccacaat cagaccggg cctcagggc atcagagtcc gcatatgaa ggcgcattgt tctggacggc ccagcagctc ctgtggccac agcagcttg tacacgaaga ccatccatcc tccctcgtc caccactcta ctccctccac cctccctccc tgatcccgtg tgccaccagg agggagtggc agctatagtc tggcaccaaa gtccaggaca cccagtgggg tggagtggga gccactggtc ctgctgtgg ctgctctct gtccacctt gtgaccagg gtggggacag gggctggccc agggctgcaa tgcagcatgt tgccctggca cctgtggcca gtactcgga cagactaagg gcgctgtcc catectggac tttctctc atgtctttgc tgcagaactg aagagactag gcgctggggc tcagcttccc tcttaagcta agactgatg cagaggcccc atggcgaggc ccttggggc cactgctga ggctcacggt acagaggcct gccctgcctg tgttttctc tgttaaatc tgtgtgaag gtgtgagacg ttgttaagt tgttttctc tgttaaatc tttcagtggt gacactaaa attaaacaca tgcatacaga aaaaaaaaaa aaaaaaaaaa a </p>	<p> Homo sapiens FSEIITPTE P ENTCQDVDEC WTTPPGVHSQ TVCEDMTFST DVEALAPFVR HLIATQLLSN MGQSSARMKL NWAVAAGAE IRGVQLRLS AVNSIFLSHN </p>
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89	941	EMR1 Hormone NM_001974 Receptor	NTKELNSPIL FAFSHLESSD GEAGRDPPAK DVMPGPRQEL LCAFWKSDSD RGGHWATEVC QVLGSKNGST TCQCSHLSSEF TILMAHYDVE DWKLTILITRV GLALSFLCLL LCILTFLLVR PIQGSRTTIH LHLICICLFVG STIFLAGIEN EGGQVGLRCR LVAGLLHYCF LA AFCWMSLE GLELYFLVVR VFGQGLSTR WLCLIGYGV LLIIVGSAAI YSKGYGRPRY CWLDFEQGFL WSFLGPVTFI ILCNAVIFVT TWKLTQKFS EINPDMKKLK KARALITITAI AOLFLIGCTW VFGLFIFDDR SLVLTIVFTI LNCLOGAFLY LLHCLLNKKV REEYRKWACL VAGGSKYSEF TSTTSGTGHN QTRALRASES GI	Homo sapiens
			ctaaagtttt ttctttgaa tgacagaact acagcataat ggtgggttc aactgtctc A tcttctggg atgttgtt atgcacagct gggaaggga cataagaccc acacggaaa caaacacaaa gggtaataac ttagagaca gtacctgtg ccagcttat gccacctgca ccaatcaggt ggacagttac tattgcactt gcaacaagg cttctgttc agcaatggg aaaatcacct caaggatcca ggagtgcgat gcaaatgat tgatgaatgt tctcaagcc ccagccctg tggctcctaac tcatcctgca aaacccgtgc agggaggtac aagtgcagct gttagatgg ttctcttct cccactggaa atgactgggt cccaggaag ccgggcaatt tctcctgtac tgatatcaat ggtgctcctca ccagcagggt ctgacctgag cattctgact gtgtcaact catgggaagc tacagttgca gctgtcaagt tggattcatc tctagaaact ccacctgtga agacgtgaat gaatgtgcag atccaagagc ttgccagag catgcaact gtaataacac tgttgaaac tactctgtt tctgcaacc aggattgaa tccagcagt gccacttgag ttgccagggt ctcaagcat cgtgtgaaga tattgatgaa tgcactgaaa tgtgccccat caattcaaca tgcaccaaca ctctgggag ctacttttg acctgccacc ctggctttgc accaagcagt ggacagttga atttcacaga ccaaggagt gaatgtagag atattgatga gtgccgcaa gatccatcaa cctgtgttc taattctatc tgcaccaatg cctgggtc ctacagctgt ggtgcattg taggcttca tcccaatca gaaggctccc agaaagatgg caacttcagc tgccaaagg tctcttcaa atgtaaggaa gatgtgatac ccgataataa gcagatccag caatgccaa agggaaccgc agtgaacct gcatatgtct ccttttgtc acaataaat aacatcttca gcgttctgga caaagtgtt gaaaaataaa cgaccgtagt ttctctgaag aatacaactg agagctttgt cctgtgtctt aaacaaatat ccatgtggac taaattcacc aaggagaaga cgtcctcctt ggcacagtc ttctggaga gtgtgaaag catgacactg gcattctttt ggaacccctc agcaaatgtc actccggctg ttcgggggga atacttagac attgagagca agttatcaa caaagaatgc agtgaagaga atgtgacgtt ggacttgga gccaaagggtg ataagatgaa gatcgggtgt tccacaattg aggaatctga atccacagag accactgtg tggctttgt ctcctttgt ggcattggaat cggttttaaa tgagcgttc ttccaaagacc accaggctc cttgaccacc tctgagatca agctgaagat gaattctcga gtctgtggg gcataatgac tggagagaag aaagacggct tctcagatcc aatcatctac actctggaga agcttcagcc aaagcagaag tttagagggc ccatctgtgt ttctggagc actgatgga aggttggaag atggacatcc tttagctgtg tgatcctgga agcttctgag acatatacca tctgcagctg taatcagatg gcaaatcttg cogttatcat ggcgtctgg gagctcacga tggacttttc cttgtacatc attagccatg taggcattat catctcctg gtgtgcctc tcttgccat cgccacctt ctgctgtgtc gtcccatccg aaatcacac accatcctc accgtgacct ctgctgtgt ctcctcttg cgaagactct ctctctgccc ggtatacaca agactgacaa caagacgggc tgcgccatca	

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90	EMR1 Hormone NP_001965.1	MRGENLLFW	GCCVMHSWEG	HIRPTRKPNP	KGNNCRDSTL	CPAYATCTNT	VDSYYCTCKQ	P	Homo sapiens
941	Receptor	GFLSSNGQNH	FKDPGVRCND	IDECSSQSPQ	CGPNSSCKNL	SGRYKCSCLD	GFSSPTGNDW		
		VPGKPGNFSC	TDINECLTSR	VCPEHSDCVN	SMGSYSCSCQ	VGFISRNSTC	EDVNECADPR		
		ACPEHATCNN	TVGNYSFCFN	PGFESSGHL	SCQGLKASCE	DIDECTEMCP	INSTCNTPPG		
		SYFCTCHPGF	APSSGQLNFT	DQVECRDID	ECRQDPSTCG	PNSICTNALG	SYSCGIVGF		
		HPNPEGSQKD	GNFSCQRLVF	KCKEDVIPDN	KQIQCCQEGT	AKPAYVSFC	AQINNIFSVL		
		DKVCENKTV	VSLKNTTESF	VPVLKQISMW	TKFTKEETSS	LATVFLESVE	SMTLASFWKP		
		SANVTPAVRA	EYLDIESKVI	NKECSEENV	LDLVAKGDKM	KIGCSTIEES	ESTETGVAF		
		VSEVGMESVL	NERFFQDHQA	PLTTSEIKLK	MNSRVVGGIM	TGEKKDGFSD	PIIYILENVQ		
		PKQKFERPIC	VSWSTDVKG	RWTSFGCVIL	EASETYTICS	CNQMANLAVI	MASGELTMDF		
		SLYIISHVGI	IISLVCLVLA	IATFLLCRSI	RNHNTYLHLH	LCVCLLLAKT	LFLAGIHKTD		
		NKTGCAIIAG	FLHYLFACF	FWMLVEAVIL	FLMVRLKVV	NYFSSRNIMK	LHICAFGYGL		
		PMLVVVISAS	VQPQGYGMHN	RCWLNTETGF	IWSFLGPVCT	VIVINSLLLT	WTLWILRQL		
		SSVNAEVSTL	KDTRLITFKA	FAQLFILGCS	WVLGTFQIGP	VAGWMAYLFT	IINSLOQAFI		
		FLIHCLLNGQ	VREYKRWIT	GKTKPSSQSQ	TSRILLSSMP	SASKTG			
965	G Protein-Coupled Receptor GPR30	NM_001505	ggaataacgac	actagaagt	aggagtga	ttcctctctg	aggaagaccc	A	Homo sapiens
			acccctccgc	ctggagagcc	ggggctggcg	gtgcctgagg	accccttcgg		
			ccacgaggc	ttggggggcc	tcgctctgcc	ctcatggggc	ggccatcggt		
			gcgagtgaaa	attcaaatgg	ccagtagggg	gcgcactcgg	aagtggccgc		
			gcagttcagc	ggccccgaga	gtccggggag	ggaggtttat	ttccgcctg		
			tgaatccgc	aaccatgac	aggagaggc	gccctgtgg	ggaagaggcc		
			ggacggcagg	taccagaga	gtgagcagc	ccacgggga	ctgtgcagg		

ccgcaggag gcccgcggg cagcacgag gagggcctc gctccacgg atgcaccatg
 ccggtgtgag gagcatctgt tcttcccact ctctgcagtt aacaaaccca accaaaccca
 ccacagggtc tctctctggg gagtttccctg tctgacaaat gccaggctca cttcaaggag
 aatcacgctt ctttctaaag atgattccac catttaaac agagctcttg gacgtttcgg
 gaaaatcttg aaagctgcac ggcgcagaga catgatgtg acttcccaag cccggggcgt
 ggccctggag atgtacccag gcaccgcga gccctgggccc cccaacacca cctccccega
 gctcaacctg tcccaccgc cctggggcac cgcctgggccc aatgggacag gtgagctctc
 ggagcaccag cagtaactga tccggcctgtt cctctcgtgc cttacacca tcttctctt
 ccccatcgcc ttgtgggca acatcctgat cctggtggtg aacatcagct tccgcgagaa
 gatgaccatc ccgacctgt acttcatcaa cctggcgtg gcggacctca tccctggtggc
 cgaactccctc attgaggtgt tcaacctgca cgagcgggtac tacgacatcg ccgtcctgtg
 caccttcattg tgcctcttc tgcaggtcaa catgtacagc agcgtcttct tctcacctg
 gatgagcttc gaccgctaca tccgctggc cagggccatg cgtgcagcc tgttccgcac
 caagcaccac gcccggtga gctgtggcct catctggatg gcacccagct cagccacgct
 ggtgcccttc accgcgtgc acctgcagca caccgacgag ccctgcttct gtttcgcgga
 tgtccgggag gtgcagtgc tgcaggtcac gctgggcttc atcgtgccct tgcacatcat
 cggcctgtgc tactccctca ttgtccgggt gctggtcagg gcgcaccggc accgtgggct
 gcggcccccgc cggcagaagg cgctccgcat gatactcgcg gtggtgctgg tcttcttctg
 ctgtgtgctg ccggagaacg tcttcatcag cgtgcacctc ctgcagcggg cgcagcctgg
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 ccataaaatg taagaaaagc tgatgaggt ggtgacgttc agcctttgtc aataaacctg
 tcatgtgcgg atcctt

Homo

P

EHOQYVIGLF

ALANGTGELS

INLSHPLLGT

PAAPNTTSPE

GLEMYPGTAQ

MDVTSQARGV

NP_001496.1

G Protein-

965

92

93	978	Cholecystoki nin A Receptor	NM_000730	LSCLYTIELF	PIGFVGNILI	LNVNISFREK	MTIPDLYFIN	LAVADLILVA	DSLIEVFNLIH	sapiens
				ERYDYIAVLC	TFMSLFLOVN	MYSSVFFLTW	MSFDRIYIALA	RAMRCSLFRT	KHARLSKGL	
				IWMASVSATL	VFETAVHLQH	TDEACFCFAD	VREVQWLEVT	LGFIVPFAII	GLCYSILIVRV	
				LVRARHRGL	RPRRQKALRM	ILAVLVVFFV	CWLPENVFIS	VHLLQRTQPG	AAFCQKQSRFH	
				AHPLTGHIVN	LAAFNSCLN	PLIYSFLGET	FRDKLRLYIE	QKTNLPALNR	FCHAALKAVI	
				PDSTEQSDVR	FSSAV					
				ggaatggctg	aaaaagccca	cacctggaaa	tcactccctc	cctgctcctc	cacggcaggt A	Homo
				tgcattctcg	agacgcttcg	gtcattagag	gaatgagccg	ggagtgaaga	attcaccagc	sapiens
				tctccagcac	ttggtggaaa	gcagcaggca	aggatggatg	tggttgacag	cctcttcttg	
				aatggaagca	acatcacctc	tcctgtgtaa	ctcgggctcg	aaaatgagac	gcttttctgc	
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				agtggggcca	tgattgggtt	ctaggcaggt	caaagcagga	tatgttaagt	aacactcaac	
				catcag						
				mdvvdsllyn	gsnitppcel	glenetlflc	dqprskewq	pavqillysl	ifllsvlgn	P
				lvitvlirnk	rmrtvtnifl	lslavsdml	clfcmpnli	pnllkdfifg	savcktttyf	
				mgtsvsvstf	nlvaislery	gaickplqsr	vmotkshalk	viaatwclsf	timtpypiys	sapiens
				nlvpftknnn	qtanmcrrll	pndvmqoswh	tfllllifli	pgivmmvayg	lislelyogi	
				kfeasqkksa	kerkpsttss	kyedsdgcy	lqtrprprkl	elrqlstgss	srnrrirns	
				saanlmaakr	virmlvivv	lfflcwmpif	sanawraydt	asaerrlsgr	pisfilllsy	
94	978	Cholecystoki nin A Receptor	NP_000721.1							

95

1103

Corticotropin releasing factor
Receptor 2

TSSCVNPIIY CFMNRFRLG FMATFPCCPN PGPPGARGEV GEEEGGTTG ASLSRFSYSH
MSASVPPQ
atggacgcgg cactgtctcca cagcctgctg gaggccaact gcagcctggc gctggctgaa A
gagctgctct tggacggctg ggggccaccc ctggccaactc agggctcccta ctctactgc
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gagagccctg gcccgagta cttcaacggc tcaaacgata actactcaca gtgtgagccc
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attttggatg acaagcagag gaagtatgac ctgcactacc gcacgcccct tgcgtcaaac
tacctgggccc actgcgtatc tgtggcagcc ctgggtggccc ccttctcgtc tttcttggcc
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tgctcttggg

Homo sapiens

96

1103

Corticotropin releasing factor

MDAALLHSL EANCSLALAE ELLLDGWGPP LDEGPYSYC NTTLQIGTC WPRSAAGALV P
ERPCEYFNG VKYNTTRNAY RECLENGTWA SKINYSQCEP ILDDKQRYD LHYRIALVWN
YLGHCVSVAA LVAAFLFLA LRSIRCLRNV IHNLLITTFI LRNVWFLLQ LVDHEVHESN

Homo sapiens

[illegible]

127/448

Homo
sapiens

P

98 1240 Dopamine
Receptor D1 NP_000785.1

ttctgtgttg ttcatagtca atcaaacagg gacactacaa acatggggag ccataaggga
 catgtctttg gcttcagaat tgttttttaga aatttattct tatcttagga ttaccacaa
 agggcaaga atcaacagtg aacagcttca cttaaaaatca aattttttctg ggaagaaaaat
 gagatgggtt gagttgtctg tacaacaaca ggtgctaaca ctgttccccag caaagttttc
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 cagtaggagt gagaattttt ttccagaat ttgttgata ttgtttctat
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MRTLNTSAMD GTGLVVERDF SVRILTACFL SLLILSTLLG NTLVCAAVIR FRHLRSKVTN
 FFVISLAVSD LLVAVLMPW KAVAEIAGFW PFGSFCNIWV AFDIMCSTAS IINLCVISVD
 RYWAISSPFR YERKMTPKAA FILISVAVTL SVLISFIPVQ LSWHKAKPTS PSDGNATSLA
 ETIDNCDSSL SRTYAISVV ISFYIPVAIM IVTYTRIYRI AQKQIRRIAA LERAHAVHAKN
 CQTTGNGKP VECSPESSE KMSFKRETKV LKTLVIMGV FVCCWLPPFI LNCILPFCGS
 GETQPFICDS NTFDFVWFG WANSSLNPII YAFNADFRKA FSTLLGCYRL CPATNNAIET
 VSINNGAAM FSSHHEPRGS ISKECNLVYL IPHAVGSSED LKKEAAGIA RPLEKLSPAL

SVILDYDIDV SLEKIQIPITQ NGQHPT

Homo
sapiens

A

99 1241 Dopamine
Receptor D5 NM_000798

ggcacgaggg agggctgaag ttgggaccgc gcacagaccg cccctgcagt ccagcccgaa
 atgtgtccgc caggcagcaa cggcacccgcg taccggggc agttcgtctt ataccagcag
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102	1242	Dopamine Receptor D2	NP_000786.1	<p>gccttcacgt ggctggggcta tgtcaacagc gcggtgaacc ccacatcatc caccaccttc aacattgagt tccgcaaggc cttcctgaag atcctccact gctgactctg ctgacctgcc gcacagcagc ctgctttccca cctccctgcc caggccggcc agctcacc ttgcaaacg tgagcaggaa ggctgggtg gatcgccctc ctctctctag ccccgccagg cctgacagt ttcgtctggc tccatgctcc tcaactggcc caccacctca ctctgccagg gcagtgcctg tgagctgggc atggtaccag ccctggggct ggccccagct caggggcagc tcatagagtc ccccctcca cctccagctc cctatcctt ggcaccaa atgcagccgc cttccttgac cttccctctg ggctctaggg ttgctggagc ctgagtcagg gccacaggc tgaattttct ctttgtggg cttggcgtgg agcaggcggg gggagagat ggacagttca caccctgcaa ggccacaggg aggaagcaa gctctcttgc cgaggagcca ggaacttca gtcctgggag accatgtaa ataccagat gcaggttgga cccgagagat tcccaagcca aaaccttag ctccctccc caccctgat tcccacagt gttccacta cttccaggc tagtcggac caccctcacc ccgttacagc tcccacagt ggctctatgg gttccacat gctctgagaa gaggagccct catcttgaag ggccacaggg aatgtatccc ttctcacagc acatgctggc gccacacctg ctgacctctg acggccctgc atgtatccc ttctcacagc acatgctggc cagcctgggg cctggcaggg aggtcaggcc ctggaactct atctggcct gggtcaggga catcagaggt tcttgaggg actgcctctg ccacactctg acgcaaaacc acttctctt tctattctt ctggccttc ctctctctg ttctctctc ctccactgc ctctgctta gaggagccca cggctaagag gctgctgaaa accatctggc ctggcctggc cctgacctga ggaaggagg gaagctgcag cttgggagag cccctgggc ctgactctg taacatcact atccgatgca ccaactaat aaaacttga cgagtcacct tc</p>	Homo sapiens
103	1243	Dopamine Receptor D3	NM_000796	<p>taaagaaaaa ggatacattc gaaagcagct atgaaacatg cactaaggct taataggga gctggaaaaa cagcactcaa gtaatttcac cttagaggga aaaaagggtg attctttct gttcatttca tagttctga gtcctgagaa aggcaaggtt tgccttgctt gggatgtct gctgtcagta aatggctgca ggagccgaag tggtaaacctc ctgggtctcc agaaatcaga agaaaaattt aggaagcccc ttggcatcac gcacctccct ctgggctatg gcatctctga gtcagctgag tagccacctc aactacacct gtggggcaga gaactccaca ggtgccagcc aggccccccc acatgcctac tatgccccct cctactgcgc gctcactctg gccatcgtct tcggcaatgg cctgggtgctc atggctgtgc tgaaggagcg gccctgcag actaccacca actacttagt agtgagcctg gctgtggcag acttgctggt gccaccttg gtgatgccct gggtggtata cctggaggtg acaggtggag tctggaattt cagccgcat tgcgtgatg tttttgtcac cctggatgct atgatgtga cagccagcat ccttaattct tctgcatca gcatagacag gtacactgca gtggtcatgc ccgttcaacta ccagcatggc acgggacaga</p>	Homo sapiens

104	1243	Dopamine Receptor D3	NP_000787.1	<p>gctcctgtcg gcgcgtggcc ctcatgatac cggcgtctcg ggtactggcc tttgctgtgt cctgcccctt tctgtttggc tttataacca caggggaccc cctgtctgc tccatctcca acctgattt tgtcatctac tcttcatctg tgtccttctt cctgcccctt ggagtgtactg tccttgtcta tgccagaatc tatgtgtgac tgaaacaaag gagacggaaa aggatccctca ctcgacagaa cagtcagtgc aacagtgtca ggcctggctt ccccaacaa accctctctc ctgacccggc acatctggag ctgaagegtt actacagcat ctgccaggac actgccttgg gtggaccagg cttccaagaa agaggaggag agtgaaaag agaggagaag actcggaatt ccttgagtcc caccatagcg cccaagtca gcttagaagt tcgaaaaactc agcaatggca gattatcgac atctttgaag ctggggcccc tgcaacctcg gggagtgtcca cttcggggaga agaaggcaac ccaaatggtg gccattgtgc ttggggcctt cattgtctgc tggctgccct tcttcttgac ccatgttctc aataccact gccagacatg caacgtgtcc ccagagcttt acagtggcac gacatggctg ggtacgtga atagcgcct caacctgtg atctatacca ccttcaatat cgagttcccg aaagccttc tcaagatcct gtcttgcgtg gggagc MASLSQLSSH INYTCGAENS TGASQARPHA YYALSICALI LAIVFNGLV CMAVLKERAL P QTTNLYLVVS LAVADLLVAT LVMPWVYLE VTGGWNFSR ICCDFEVLTD VMCTASILN LCAISIDRYT AVMPVHYQH GTGQSSCRV ALMITAVWVL AFVSCPLF GFNTGDPTV CSISNPDEFVI YSSVVSFYLP FGVTLVYAR IYVVLKQRRR KRILTRQNSQ CNSVRPGFPQ QTLSPDPAHL ELKRYYSICQ DTALGGPGFQ ERGELKREE KTRNSLPTI APKLSLEVRK LSNGRLSTSL KLGPIQPRGV PLREKKATQM VAIVLGAFIV CWLPFFLTHV LNTHCQTCHV SPELYSATTW LGVNSALNP VIYTFNIEF RKAFLKILSC</p>	Homo sapiens
105	1244	Dopamine Receptor D4	NM_000797	<p>atggggaacc gcagcacgc ggacgcggac gggctgctgg ctggggcgcg gccggccgcg A ggggcatctg cggggggcatc tgcggggctg gctgggcagg gcgcggcgcg cctggtgggg ggcgtgtgc tcatcggcg ggtgctcgcg ggaactcgc tctgtgctg ggcgtggcg accgagcgcg cctgcagac gccacaaac tcttcatcg tgagcctggc ggcgcgcgac ctctctctg ctctctggt gtcgcgctc tcttctact ccgaggtcca ggttggcgcg tggctgtga gccccgcct gtgcgacgc ctcatggcca tggacgtcat gctgtgcacc gcctccatct tcaacctgtg cgccatcagc gtggacaggt tctgtggcgt ggcgtgccc ctgcgtaca accggcaggg tgggagcgc cggcagctgc tctcatcg cgccagtg ctgctgtccg cggcggtggc ggcccccgtg ctgtgcggcc tcaacgacgt gcgcggccgc gacccgcgcg tgtgcgcct ggaggaaccg gactacgtgg tctactctc cgtgtgtcc ttcttctac cctgcccgt catgctgctg ctctactggg caacgttccg cggcctgcag cgtgggagg tggcacgtcg cgccaaagctg cagggcgcg cgccccgcg acccagggc cctggccgc cttccccac gccacccgcg cccgccttc cccaggaacc ctgcggccc gactgtgcg cccccgcg cgccctccc cggggtccc gggccccga cgtgccc gcgcgcgcg gctcccccc ggacccctgc ggcctccact gtgcgcctc cgcgcgcg ctccccagg accctgcg ccccgactgt ggcctcccg cgcctccct tccccgggt ccctgggc cagactgtg gccccccg cccggctcc cccaggaacc ctgcggccc gactgtgcg cccccgcg cggcctccc cgggacctc cgggctcaa cgtgtctcc cccagcgcg tcaagacgc cgcgctcca cccagactc caccgagac ccgagaggg cggcgtgcca agatcacgg ccgggagcg aagccatga ggtcctgcc ggtgtgtc gggccccttc tctgtgtgac gacgcccctc tctgtgtgac acatcacga ggcgtgtgt</p>	Homo sapiens

106	1244	Dopamine Receptor D4	NP_000788.1	<p>cctgcctgct cagtggcccc gcggtgggtc agcgccgtca cctggctggg ctacgtcaac agcgccctca acccgtcat ctacactgtc ttaacgccg agtcccgcaa cgtctccgc aaggccctgc gtgcctgctg ctgagccggg caccgccgga cgcgcccg cctgatggcc aggcctcagg gaccaaggag atggggaggg cgttttggta cgttaattaa acaattcct tccc</p>	Homo sapiens
				<p>TERALQPTN SFIVSLAAAD LLLALLVLPL FVYSEVQGA WLLSPRLCDA LMAMDVMLCT ASIFNLCAIS VDREFAVAAP LRYNRQGSR RQLLLIGATW LLSAAVAAPV LCGLNDVRGR DPAVCRLEDR DYVYSSVCS FFLPCPLMLL LYWATERGLQ RWEVARRAKL HGRAPRRPSG PGPPSPTPPA PRLPQDPCG DCAPPAPGLP RGPCGPDCAAP AAPGLPPDPC GPDCAPPAPG LPQDPCGPDG APPAPGLPRG PCGPDCAAPG PGLPQDPCGP DCAPPAPGLP PDCGSNCAAP PDVRAAALP POTPPQTRRR RRAKITGRER KAMRVLPVVV GAFLLCWTFP FVWHITQALC PACSVPPRLV SAVTWLGYVN SALNPVIYTV FNAEFNVFR KALRACC</p>	P
107	1267	Opioid Receptor, delta 1 (OPRD1)	NM_000911	<p>ccgaggagcc tgcgtgctc ctggctcaca gcgtcccggt cgaggagagc gggcgggaccg A gggggctggg ccggtgcggg cggcgaggga ggcgagacgag gcgcagagac agcgggggcg ccggggcgcg gcaecggcg ggtcggggccc ggctctgccc ttgcgcgtcc cctcgcgctg gatcccgcg ccagggcagc cgtgggagag ggacgcggcg gacgcggga gccatggaa cgccccctc cgccggcgcc gactgcagc cccgctctt gcccaacgcc tcggacgctc acctagcgc ctccccagc gctggcgcca atgcgtcggt gccgccagga ccggggagcg cctcgtccct cgcctggca atcgccatca ccgctctcta ctcggccgtg tgcgcgtgg ggctgctggg caactgctt gtcattgttc gactgcgtgc tagccgagc atgaagacgg ccaccaacat ctacatctc aacctggcct tagccgagc gctggccacc agcacgctgc ctttccagag tgccaaagtac ctgatggaga cgtggccctt cgccgacct cctgcaagg ctgtgctctc catcgactac tacaatatgt tcaccagcat cttcacgctc accatgatga gtgttgacc ctacatgct gtctgccacc ctgtcaaggc cctggacctc cgcacgctg ccaaggccaa gctgatcaac atctgtatct gggtccctggc ctcaggcgtt ggctgcccc tcattggtcat ggctgtgacc cgtccccggg acggtgcagt ggtgtgcagt ctcacgttcc ccagccccag ctggtactgg gacacggtga ccaagatctg cgtgttctc ttgccttccg tggtgcccc cctcatcacc accgtgtgt atggcctcat gctgctgccc ctgcgagtg tgccctgct gtccggctcc aaggagaagg accgcagcct gcggcgcatc acgcgcatgg tgctggtgtt tgtggcgccc ttctgtgtgt gttggcgccc catccatc ttcgtcatcg tctggacgct ggtggacatc gaccggcg gacccctggg accgctgggt ggtggctgcg ctgacactgt gcacgcgct gggctacgcc aatagcagc tcaacccctg gctctacgct ttctctgacg agaaattcaa gcgtgcttc cgcagctct gcgcgaagcc ctgcgggccc ccagacccca gcagcttcag ccggccccgc gaagccacgg ccgcgagcg tgtcacccg tgcacccgt ccgatggtcc cggcggtggc cgtgccgctt gaccaggcca tccggcccc agacgcccc ccctagtgt acccgaggc cacatgagtc ccagtgggag gcgcgagcca tgatgtggag tggggccagt agataggtcg gagggtttt ggaccgccag atggggcctc tgttcggag acgggaccgg gccgctagat ggcatgggg tgggctcttg gtttggggc aggcagagga cagatcaatg gcgcagtgcc tctggtctgg gtgccccct ccacggctct agtgggggcg ggaagccag tgactccagg agaggagcg gacctgtggc tctacaactg agtctctaaa</p>	Homo sapiens

108	1267	Opioid Receptor, delta 1 (OPRD1)	NP_000902.1	caggcatct ccaggaagg ggggcttcaa ccttgagaca gcttcgggtt ctaacttgga gccggacttt cggagttggg ggggtccgggg ccc MEPAPSAGAE IQPPLFANAS DAYPSAFPSSA GANASGPPGP GSASSIALAI AITALYSAVC P AVGLLGNVLV MFGIVRYTKM KTATNIYIFN LALADALATS TLPFQSAKYL METWPFGE LL CKAVLSIDYY NMFTSIFLT NMSVDRIYAV CHPVKALDFR TPAKAKLINI CIWVLASGVG VPIMMAVTR PRDGAUVCM L QFPSPSWYWD TVTKICVFLF AFVVPILIT VCYGLMLLRL RSVRLLSGSK EKDRSLRRIT RMVLVVVGA F VVCWAPIHIF VIVWTLVDID RRDPLVVAAL HLCIALGYAN SSLNPVLYAF LDENFKRCFR QLCRKPCGRP DPSSFSRPRE ATARERTAC TPSDGPGGGR AA	Homo sapiens
109	1424	Duffy Antigen	NM_002036	gggcctgaac caaacgggtgc catgggggaa cgtctgcaca gggtagtat ggggccaggc A. cccagagtcc cttatcccta tgcacctcat ttccctgct gttggccct cagctcttat atctcttctt tttctctc atctttctc ccttccgct ttttctct tcttcaaa tcttttctt tctctctc ctatgctagc cctctagtc cctctgtgt cctcccttt gcctttgagt cagttccatc ctggctctt ggtgccttc cttctgacct tgcactgctc ctccagcccc agctgcccc gcttcccc gactgttct cctccggctc ttccaggtcc ctgctttgtc cttttccact gtcgcactg catctgactc ctgcagagac cttgttctcc cacccgacct tctctctgt cctccctcc cactgcccc tcaattccca ggagactctt ccggtgtaac tctgatggc tctctgggt atgtctcca ggcggagctc tccccctcaa ctgagaactc agtcagctg gacttcgaag atgtatgaa ttcttctat ggtgtgaatg attccttccc agatggagac tatgatgcca acctggaag agctgcccc tgcactcct gtaacctgct ggatgactct gcactgacct tcttctcct caccagtgc ctgggtatcc tagctagcag cactgtctc tctatgctt tccagacct cctccgctg cagctctgcc ctggctggcc tgtcctggca cagctggctg tggcagctgc cctctcagc attgtgtgc ccgtcttggc ccagggcta gtagcactc gacgtctgc cgtgtgagc ctgggctact gtgtctggta tggctcagc tttgcccagg cttgtgctgt aggtgacct gcctccctgg gccacagact gggtagcagg caggtcccag gcctaccct ggggtcact gtgggaattt ggggagtggc tgcctactg acactgctg tcacctggc cagtgtgtct tctggtggac tctgcacct gatatacag acggagtga aggttttga ggcacacac actgtagcct gtcttgccat cttgtcttg ttgccattg gttgtttgg agccaagggt ctgaagaagg cattgggtat ggggccaggc cctggatga atacctgtg ggcctggtt atttctggt ggcctcatgg ggtggttcta gactggatt tctgtgtgag gtccaagctg ttgtgtgtg caacatgtct gcccagcag gctctgacc cctctgctga cctggcagaa gccctggcaa ttttgacctg tgtggtacg cccctgctc tcgacctatt ctgccaccag gccaccgca cctcttgcc cttctgccc cctctgaag gatggtctt cactctggac accttgga gcaaatccta gttctcttc cactgtcaa cctgaattaa agctacact gccttgtg MASSGVILQA ELSPTENSS QLDFFVWNS SYGVNDSFPD GDYDANLEAA APCHSCNLLD P DSALPFIIT SVLGILASST VLFMLFRPLF RWQLCPGWPV LAQLAVGSAL FSIVVPVLAP GLGSTRSSAL CSLGYCWYGF SAFAQALLLG CHASIGHRLG AGQVPGLTLG LTVGIWGVAA LLTLPVTIAS GASGGLCTLI YSTELKALQA THTVACLAIF VLLPLGLFGA KGLKALGMG PGPMNIIWA WFIFWPHGV VLGLDFLVR KLLLLSTCLA QQALDLLNL AEALAILHCV ATPLLLALFC HQATRTLPLS LPLPEGWSSH LDTLGSKS	Homo sapiens
110	1424	Duffy Antigen	NP_002027.1		Homo sapiens

111	1451	EBV-Induced Gene 2	NM_004951	ggaattccct gatatacacc tggaccacca ccaatggata tacaaatggc aaacaatttt A actcgcgcct ctgcaactcc tcagggaat gactgtgacc tctatgcaca tcacagcacg gccaggatag taatgcctct gcattacagc ctgcgtcttca tcatgggct cgtgggaaac ttactagcct tgggtgctcat tgttcaaac aggaaaaaa tcaactctac caccctctat tcaacaaaatt tgggtgatttc tgatatactt ttaccaccg ctttgcctac acgaatagcc tactatgcaa tggggtttga ctggagaatc ggagatgctt tgtgtaggat aactgcgcta gtgtttttaca tcaacacata tgcaggtgtg aactttatga cctgacctgag tatgaccgc ttcattgtcg tgggtcaccc tctacgctac aacaagataa aaaggattga acatgcaaaa ggcgtgtgca tattgtctg gattctagta ttgctcaga cactcccat cctcatcaac cctatgtcaa agcaggaggc tgaaggatt acatgcatgg agtatccaaa ctttgaagaa actaaatctc ttccctggat tctgcttggg gcattgttca taggatattg acttccactt ataatcattc tcatctgcta ttctcagatc tgcgtcaaac tcttcagaac tgcacaaaca aaccactca ctgagaaatc tgggtgtaac aaaaaggctc tcaacacaaat tattcttatt attgttgtgt ttgttctctg ttccacacct taccatgttg caattattca acatatgatt aagaagcttc gtttctctaa ttctctgtaa tctagcctgac gacattcgtt ccagatttct ctgcacttta cagtatgcct gatgaacttc aattgctgca tggacctttt tatctacttc tttgcattga aagggtataa gagaaaggtt atgaggatgc tgaacggca agtcagtgtg tcgatttcta gtgctgtgaa gtcagccctt gaagaaaatt cacgtgaaat gacagaaaacg cagatgatga tacattccaa gcttccaaat ggaaagtga atggattgta ttttggttta tagtgacgta aactgtatga caaactttgc aggacttccc ttataaagca aaataattgt tcagcttcca attagtattc ttttatattt ctttcattgg gcactttccc atctccaact cggaagtaag ccaagagaa caacataaag caacacacat aaagcacaaat aaaatgcaa ataaatattt tcatttttat ttgtaaacga atacaccaa aggagcgct cttataaact cccaatgtaa aaagtattgt ttataaaaa aatttaatta ttatttcttg ccaacaaatg gctagaaagg actgaataga ttatatattg ccagatgta atactgtaac atacttttta aataacatat ttcttaaatc caaatttctc tcaatgttag atttaattcc ctcaataaca ccaatgtttt gtttgtttc gttctgggtc ataaaaacttt gtttaagggaac tcttttgga taaagagcag gatgctgc MDIQMANNFT PPSATPQGN CDLYAHSTA RIVMPLHYSL VFIIGLVGNL LALWIVQNR P KKINSTTLYS TNLVISDILF TTALPTRIAY YAMGFDWRIG DALCRITALV FYINTYAGVN FMTCLSIDRF IAVVHPLRYN KIKRIEHAKG VCIFWILVF AOTLPLLINP MSKQEAERIT CMEYPNFEET KSLPWILLGA CFIGYVLP LI ILICYSQIC CKLFRTAKQN PLTEKSGVNK KALNTIILII VVFLCFTPY HVAIIQHM IKRFSNFLEC SQHSFQISL HFTVCLMNFN CCMDPFIYFF ACKGYKRKVM RMLKRQVSUS ISSAVKSAPE ENSREMTETQ MMHSKSSNG K	Homo sapiens
112	1451	EBV-Induced Gene 2	NP_004942.1	gagacattcc ggtgggggag tctggccagc ccgagcaacg tggatcctga gagactccc A aggtaggcatt ttgcccgggt gggacgcctt gccagagcag tgtgtggcag gccccgtgg aggatcaaca cagtggctga acactggga ggaactggta cttggagtct ggacatctga aacttggtc tgaactgcg cagcggccac cggacgcctt ctggagcagg tagcagcatg cagccgcctc caagtctgtg cggacgcgc ctgggttgcg tgggttctgc ctgcccgtg tcgcggtatct ggggagagga gagaggcttc ccgcctgaca gggccactcc gcttttgcaa	Homo sapiens
113	1486	Endothelin B Receptor	NM_000115		Homo sapiens

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gcagcgtcga gaagtggcaa aaacagtctt ctgcttggtt gtaatttttg ctctttgctg
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tcagtgcaat gtatatagaa gtctaaaaa cacctaagag aaaaagatcg aatttttcag
atgattcgga aattttcatt caggtatttg taatagtgc atatatatg atatacatat
cacctcctat tctcttaatt ttgttataaa tgttaactgg cagtaagtct tttttgatca
ttcccttttc catatagga acataaattt gaagtggcca gatgagtta tcatgtcagt

116	1488	Endothelin A NP_001948.1 Receptor	gaaaaataat taccacacaaa tgccaccagt aacttaacga ttcttcactt cttgggggttt tcagtatgaa cctaaactccc caccacaaca tctccctccc acattgtcac catttcaaaag ggccacagc gacttttgtt gggcattttc ccagatgttt acagactgtg agtacagcag aaaaatcttt actagtgtgt gtgtgtatat atataaaca ttgtataatt ctttagcccc atttttctag actgtctctg tggaatatat ttgtgtgtgt gatataatga ttgtgtgtgt ggtatgtatg gatttaattc aatctaataa ttgtgtcccc cagttgtgcc aaagtgcata gtctgagcta aaatctaggt gattgttcat ctgacaacc tgccctcagc cattttaacc tgtagcaacc ttctgcattc ataaatcttg taatcatgtt accattacaa atgggatata agaggcagcg tgaagcaga tgagctgtgg actagaata tagggttttg ttgggttggg tggtttgata aagcagtatt tgggttcata ttgtttcctg tgctggagca aaagtcatta cacttgaag tattatatg ttcttacct caattcaatg tggatgatga attgccaggt tgtctgatat ttctttcaga cttgccaga cagattgtgt ataataaatt aggtaaata attgtttggg ccataattta ggacaggtaa aataacatca ggttccagtt gcttgaatg caaggctaag aagtactgcc cttttgtgtg ttagcagtc aatctattat tccactggcg catcatatgc agtgatatat gctataata taagccatag gttcacacca ttttgttag acaattgtct tttttcaag atgttttgtt tctttcatat gaaaaaaatg cattttataa atkcagaaag tcatagattt ctgaaggcgt caacgtgcac tttatttatg gactggtaag taactgtggt ttactagcag gaattattcc aatttctacc ttactacat ctttcaaca agtaactttg tagaaatgag ccagaagcca aggccctgag ttggcagttg ccataaagt taaaaaaaa gtttacagaa acctt	Homo sapiens
117	1598	Calcium-Sensing Receptor (CASR)	caacaggcac ctggctgcag ccaggaagga ccgcacgccc ttctgcgcag gagagtggaa ggaggagact gtttgccagc accgaggtct tgcggcacag gcaacgcttg acctgagtct tgcagaatga aggcacacac aggagccctc tgcattgagt ggcttccaaa gactcaagga ccaccacacat tacaagtctg gattgaggaa ggcagaaatg gagattcaaa caccacgtct tctattattt tattaatcaa tctgtagaca tgtgtcccca ctgcaggag tgaactgctc caaggagaaa acttctggga gcctccaaac tctagctgt ctctacctt gccctggaga gacggcagaa ccatggcatt ttatagctgc tctgggtccc tcttggcact cactggcac acctctgctt acgggccaga ccagcgagcc caaagaagg gggacattat ccttgggggg ctctttccta ttcatatttg agtagcagct aaagatcaag atctcaaatc aagggcggag tctgtggaat gtatcaggtta taatttccgt ggggttctgt ggttacaggc tatgatat gccatagagg agataaacag cagcccgacc ctcttccca acttgacgct gggatcacagg atatttgaca cttgcaacac cgtttctaag gccttggag ccacctgag ttttgtgtct caaaacaaa ttgattcttt gaaccttgat gatttctgca actgctcaga gcacattccc	Homo sapiens

tctacgattg ctgtggtggg agcaactggc tcagggtctt ccacggcagt gcgaaatctg
ctggggctct tctacattcc ccaggtcagt tatgcctctt ccagcagact cctcagcaac
aagaatcaat tcaagtcttt cctcgaacc atcccaatg atgagcacca ggccactgccc
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gaggtgattg ccactctggc agccagcttt ggcttgctgg cgtgcatctt ctccaacaag
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gcctaacc agcaagagca gcagcagcag ccctgaccc tcccacagca gcaacgatct

120	1676	Formyl Peptide Receptor- Like Receptor	NP_001453.1	caacttctcc actcctctga atgaatatga agaagtgtcc tatgagtctg ctgggtacac tggtctgagg atcctcccat tgggtgtgct tggggtcacc ttgtctctcg ggggtcctggg caatgggctt gtgatctggg tggctggatt ccggtatgaca cgcacagtca ccaccatctg ttacctgaac ctggccctgg ctgacttttc ttccacggcc acattaccat tccatctgt ctccatggcc atgggagaaa aatggccttt tggctgggtc ctgtgtaagt taattcacat cgtgtgggac atcaacctct ttggaagtgt ctcttgatt ggtttcattg cactggaccg ctgcatttgt gtcctgcac cagtctggc ccagaaccac cgcactgtga gtcctggccat gaagtgatc gtcggacctt ggattcttg tctagtctt accttgccag ttttctctt tttgactaca gtaactattc caaatggga cacatactgt actttcaact ttgcatcctg gggtggcacc cctgaggaga ggctgaaggt ggcattacc atgctgacag ccagagggat tatccggtt gtcattggct ttagcttgcc gatgtccatt gttgccatct gctatgggct cattgcagcc agatccaca aaagggtcat gattaaatcc agcgtccct tacgggtcct cactgctgtg tggctcttct tcttcactg ttggtttccc ttcaactgg ttgccccttct ggcacctgc tggctcaag agatgttgt ctatggcaag tacaataca ttgacatcct ggttaaccca acgagctccc tggccttct caacagctgc ctcaaccca tgccttaagt ctttgtggc caagacttcc gagagagact gatccactcc ctgcccacca gtcctggagag ggccctgtct gaggactcag ccccaactaa tgacacggct gccaatctg ctccactcc tgcagagact gagttacagg caatgtgagg atggggtcag ggatatttg agttctgttc atcctacct aatgccagtt ccagcttcat ctacccttga gtcattatga ggcattcaag gatgcacagc tcaagtattt attcaggaaa aatgcttttg tgcctctgat ttggggctaa gaaatagaca gtcaggctac taaaatatta gtgtatttt ttgtttttg acttctgct ataccctgg gtaagtggag ttgggaaaata caagaagaga aagaccagt gggatttgt agacttagat gagatagcgc ataataaggg gaagacttta aagtataaag taaaatgttt gctgtagtt ttttatagct attaaaaaaa atcagattat ggaagtcttc tctattttt agtttgctaa gagttttctg ttctttttt ttacatcatg agtggacttt gcattttatc aaatgcattt tctacatgta ttaagatggt catattattc ttcttcttt atgtaaatca ttataaataa tgttcattaa gttctgaatg ttaactact ctggaattcc tggaataaac cacacttag cctgatgtac tttaaatatt tatatctcac aggagtgtgt tagaatctct gtgtttatgt ttatatactg ttatttcaat ttttctacta tccctgtcaa gttttcatag aaaaataagg acaaaagaaa acttgaatg gtcctgaaa aggaattgag aagtaattcc tctgattctg ttttctggtg ttatatcttt attaaatatt cagaaaaatt C TICYNLALA DFSFATLPF LIVSMAMGEX WPFGWFLCKL IHIVVDINLF GSVFLIGFIA LDRICVLPV VMAQHRTPV LAMKIVGPW ILALVLTLPV FLFLTVPF NGDYCTFNF ASWGTPEER LKVAITMLTA RGIIRFVIGF SLPMIVAIC KGMIKSSRPL RVLTAVASF FICWFFQLV ALLGTWVWKE MLFYGYKII DILVNPTSSL AFFNSCLNPM LYVFGQDFR ERLIHSPTS LERALSEDA PTNDTAANSA SPPAETELQA M	Homo sapiens
121	1681	Follicle Stimulating Hormone Receptor	NM_000145	cgctgagatc tgtggaggtt ttctctgca aatgcagaaa gaaatcaggt ggaatgagc A ataattatgg cctgctcctt ggtctctttg ctggacttcc tgagctggg ctcaggatgt catcatcgga tctgtcactg ctctaacagg gttttctct gccaagagag caaggtgaca gagattcctt ctgacctccc gaggaatgcc attgaactga ggtttgtcct caccaagctt	Homo sapiens

122	Follicle Stimulating Hormone Receptor	NP_000136.1	<p> cagatcatcc aaaaaggtgc attttcagga ttgggggacc tggagaaaa agagatctct cagaatgatg tcttgaggtg gatagaggca gatgtgttct ccaaccttcc caaattacat gaaattagaa ttgaaaaggc caacaacctg ctctacatca cccctgagggc cttccagaac cttcccaacc ttcaatatct gtaatatatc aacacaggta ttaagcacct tccagatgtt cacaagattc attctctcca aaaggtttta cttagacattc aagataaacat aaacatccac acaattgaaa gaaattcttt cgtgggggctg agctttgaaa gtgtgattct atggctgaat aagaatggga ttcaagaaat acacaactgt gcattcaatg gaacccaact agatgcagt aatctaagcg ataataataa tttagaagaa ttgcctaagt atgttttcca cggagcctct ggaccagtca ttctagatat ttcaagaaca aggatccatt cccctgctag ctatggctta gaaaatctta agaagctgag ggccaggtcg acttacaact taaaaagct gctactctg gaaaagcttg tcgcccctcat ggaagccagc ctacactatc ccagccattg ctgtgcccct gcaaacctgga gacggcaaat ctctgagctt catccaattt gcaacaaaatc tattttaagg caagaagtgg attatatgac tcagggtagg ggtcagagat cctctctggc agaagacaat gagtcagct acagcagagg atttgacatg acgtacactg agtttgacta tgacttatgc aatgaagtgg ttgacgtgac ctgtccctct agccagatg catccaaccc atgtgaagat atcatggggg acaacatcct cagagtcctg atatggttta tcagcatcct ggccatcact gggaacatca tagtgctagt gatcctaact accagccaat ataaactcac agtccccagg ttccttatgt gcaacctggc cttgtctgat ctctgcattg gaattacact gctgctcatt gcatcagttg atatccatca caagagccaa tatcacaact atgccattga ctggcaaat ggggcaggct gtgatgtgc tggcttttct actgtctttg ccagtgcgtc gtcagtcctac actctgacag ctatcacctt ggaagatgg cataccatca cgcattgccat gcagctggac tgaaggtgc agtcccgca tgcgtccagt gtcagtgtga tgggctggat ttttgctttt gcagtgccc tcttcccat ctttggcatc agcagctaca tgaaggtgag catctgcctg cccatggata ttgacagccc ttgttcacag ctgtatatga tgtccctct tgtgctcaat gtcctggcct ttgtggtcat ctgtggctgc tagtgacacc aggatcgcca catgctcatc cccaacatcg tctcctctc tagtgacacc ggcaacctt tcttctttg ccatttctgc ctccctcaag ttcactgact tctctgcat tcaactgtgc caaagcaag attctgctgg tctgtttca ccccatcaac gtgcccctca tcaactgtgc acccttctct ctatgccatc ttaccacaaa actttcgag agatttcttc tctgtgcca acccttctct ctatgccatc ctgctatga atgcaagccc aaatttatag gacagaaact attctgtga gcaagtgtgg ctgctatga ccatcccaag aatggccact gctcttcag tccagagtc tcatccactg tccacaacac ccacttatc acttgcctc ctgaagtcat tagcccaaaa ctaaaacaca accagtgtt gtatctgagt attgaatgat aattcagtc catctatttga aggtatgtc atgtgaaaat gacagtgtt ctacacattt catctaatat aatattcttgc gcatacctt acaaggagct ggtcaggaaac tattaattcc atgtgataca ttaggaagct gaattattag aaggtaaat ggtcaggaaac tattaattcc atgtgataca ttaggaagct gaattattag taacaacaat aataataaa gaatgcaata ctgtaaaaa cgggccgcga att </p>	Homo sapiens
1681			<p> MALLVSLIA FLSLGSCHH RICHCSNRVE LCQESKVTET PSDLPNAIE LRFVTKLRV P IQKGAFFSGF DLEKIEISQN DVLEVIEADV FSNLPKLHEI RIEKANNLLY TPFAFQNL P NLQYLLISNT GIKHLPDVHK IHSLOKVLDD IQDNIINIHTI ERNSFVGLSF ESVLWLKN GIQEIHNCAF NGTQLDVNL SDNNNLEELP NDVFHGASGP VILDISRTI HSLPSYGLE N LKKLRARSTY NLKLPITLEK LVALMEASLT YPHSCAFAN WRRQISELHP ICNKSILRQE </p>	

123	1726	G Protein- Coupled Receptor RDC1	U67784	VDYMTQARGQ RSSLAEDNES SYSRGFDMTY TEFDYDLGNE VDVTCSPKP DAFNPCEMIM GYNILRVLIW FISILAITGN IIVLVILTTS QYKLTVERFL MCNLAFAADLC IGIYLLLIAS VDIHTKSQYH NYAIDWQTGA GCDAAGFFTV FASELSVYTL TAITLERWHT ITHAMQLDCK VQLRHAASVM VMGWIFAFAA ALFPIFGISS YMKVSICLPM DIDSPLSOLY VMSLLVLNLV AFVVICGCIY HIYLTVRNPN IVSSSSDTRI AKRMAMLIPT DFLCMAPISF FAISASLKVP LITVSKAKIL LVLFHPINSC ANPFLYAIPT KNFRDRDFIL LSKCGCYEMQ AQIYRTETSS TVNTHPRNG HCSSAPRVTS GSTYILVPLS HLAQN gccaactccg tgggtggtcg ggtgaatatc caggccaaga ccacaggcta tgacacgcac A tgctacatct tgaacctggc cattgccgac ctgtgggttg tccctaccat cccagtcctgg gtggtcagtc tctgtcagca caaccagtg cccatgggag agctcacgtg caaagtcaca cacctcatct tctccatcaa cctctcagc agcatcttct tccctacgtg catgagcgtg gacggctacc tctccatcac ctacttcacc aacaccccca gcagcaggaa gaagatggta cgccgtgtcg tctgcatact ggtgtgggtg ctggccttct gctgtctctt gcctgacacc tactacctga agaccgtcac gtctgcgtcc aacaatgaga cctactgccg gtccttctac cccgagcaca gcatcaagga gtggctgata ggcattggagc tggctccctg tgccttgggc tttgccgttc cctctccat tctcgtgtc tctacttcc tgctggccag agccatctcg ggtccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtgggtggtc ttccttgtct gctgggtgct ctaccacgtg gcgggtgctg tggacatctt ctccatcctg cactacatcc ctttccactg ccggtggag cagccctct tcaaggccct gcattgtcaca cagtgccgtg cgctggtgca ctgctgcgtc aacctgtcc tctacagctt catcaatcgc aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggctc accaagctca tcatgctcctc cagagtctca gagacggagt actcgtcctt ggagcagagc accaaatgat ctgcccctga gaggctctgg gacgggttta ctgttttttg aacagggtga tgggccctat ggttttctag agcaaaagcaa agtagcttctg ggtcttgatg cttgagtaga gtgaagaggg gagcacgtgc cccctgcac cattyctctt tctcttgatg gacgcagctg tcatttggct gtgctgctg acagtcttgc aacaggcaga gctgtgtcgc acagcagtcg tgtgcgtcag agccagctga ggacaggctt gcctggactt ctgtaagata ggattttctg tgtttcctga atttttata tgggtgattg tatttaaat ttaagacttt atttctcac tattggtgta cctataaat gtatttgaaa gttataata ttttaaatat tgtttgggag gcatagtgtc gacatatatt cagagtgttg tagttttaag gttagcgtga ctttcagttt tgactaagga tgacactaat tgttagctgt tttgaaatta tataataata aatatataaa tatatgccag tcttgctga aatgttttat ttaccatagt tttatatctg tgtggtgttt tgtaccggca cgggatattg aacgaaaaact gctttgtaac gcagtttgtg acattaatag tattgtaaaag ttacatttta aaataaaca aaaactgttc tggactgcaa atctgcacac acaacgaaca gttgcatttc agagagttct ctcaatttgt aagttatttt tttttaataa agatttttgt ttcctaaaaa aaaaaaaaaa aaaaa MDLHLFDYAE PGNFSDISWP CNSSDCIVVD TVMCPNPNK SVLLYTLSEI YIFIFVIGMI P ANSVVVWNI QAKTGYDTH CYILNLAIAD LMVLTIPW VVSLVQHNQW PMGELTCKVT HLIFSINLFS GIFFLTMSV DRYLSITYFT NTFSSRKKMV RRVVCILVWL LAFCVSLPDT YYLKTVTSAS NNETYCRSFY PEHSIKEWLI GMELVSVVLG FAVPFSSIAV FYFLARAIAS ASSDOEKHSS RKLIFSYVW FLVCWLPYHV AVLLDIFSIL HYIPFCTCLE HALFTALHVT	Homo sapiens
124	1726	G Protein- Coupled Receptor RDC1	AAA62370.1		Homo sapiens

125	1762	Galanin Receptor GalR1	NM_001480	AK	QCLSLVHCCV NPVLYSFNR NYRYELMKAF IFKYSAKTGL TKLIDASRVS ETEYSALEQN	Homo sapiens
					atccccgtag aatccgtcca gtctctgctc gcgcacgctg acttctaagg ggcgcgatt A	
					tcagccgagc tgttttcgcc tctcagttgc agcagagaag cccctggcac ccgactctat	
					ccaccaccag gaagctccc aaagagctc tcgcccctgtg gacgactcgg aatccccgga	
					aaagccggga gggagtcgga gcgcaccagc cactggggag gtggcgctgg gcgcgcggga	
					tgccggggga gccctctctg caggagccgc acagtgcact gctgcgcgt gggcagtgog	
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					agccaggga aaccgcccgc gaagatctgg agcgttaagg cggagagaag ggtctttcca	
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					ggcgcccttc atctgcaagt tcatccacta ctcttcacc gtgtccatgc tggtagagcat	
					cttaacctg gccgcgatgt ccgtggaccg ctactggcc atcgtgcact cgcggcgctc	
					ctcctccctc aggtgtccc gcaacgcgtt gctggcgtg gctgcactt ggcgcgtgtc	
					cattgccatg gcctcgccc tgccctacca ccagggcctc tccaccgcg gcgccagcaa	
					ccagacctc tgctgggagc agtggcccga cctcgccac aagaaggcct acgtggtgtg	
					caccttcgtc ttcggctacc tgctgcgct cctgctcatc tgcttctgct atgccaaagt	
					ccttaatcac ttgcataaaa agttgaagaa catgtcaag aagtctgaag catccaagaa	
					aaagactgca cagacagttc tgggtggtgt tgtggtgttt ggaatctctt ggtgcccga	
					ccacatcatc catctctggg ctgagtttgg agttttccc agtgcgcgg cttccttcc	
					cttcagaatc accgcccact gctggcgta cagcaattcc tccgtgaatc ctatcattta	
					tgcatcttc tctgaaaatt tcagggaagg ctataaaca gtgttcaagt gtacatttcg	
					caaagattca cactgagtg atactaaaga aaataaaagt cgaatagaca cccaccatc	
					aaccaattgt actcatgtgt gataaaagat agagtatcct tatggttgag ttccatata	
					agtggaccag acacagaaac aaacagaatg agctagtaag cgatgctga acttgtatc	
					ttacaagaag ttcaagtcgt tttaattaaa tcccacgtgt gttaaaaagt actttgatcc	
					atttaggaaa ttccctaggtc tagtgagaat tatttttcaa ttttatttta gttctaaatt	
					atgttttcaga aacaaaagac aatgctgtac agttttatc ctcttcagac atgaagggga	
					acatatatat tccatatata tgttcaactc ttcataagatt gtgaactggc ccatcaatat	
					ggtcaggaat attgcaagtc tacattttta agccaattta tttagaaaa aaatttgagc	
					tttaattctt taattttaag agaagtaata ttgtgaacta tgtattttta aatatgatca	
					.tggacacaca atgatgaatt ttttgcccat ttacatagac atatctatta agtgggaaga	

Homo
sapiens

NP_001471.1
MELAVGNLSE
SKPGKPRSTT
VSIFTLAAMS
ASNQTFQWEQ
SKKTAQTVL
IIYAFISENF
gagcagcgggtg
atcgccctcg
cagctgtctg
aaggggcaga
gagaccttgg
tacgtctgct
ctgccctggc
caatggggac
ctggaccaaa
tctctcgcca
actagaaact
ctcagccgag
ctgtggaacc
ggtgccaact
gtggaggct
gcgcttttcg
gagcgcaacg
ttgattaatt
cggcaaatgc
ccccgtctgg
gccctgcgct
gtcagcgtcc
caccactgcc

Galanin
Receptor
GalR1

1762

126

NM_000164
Gastric
Inhibitory
Polypeptide
Receptor

1808

127

Homo
sapiens

A
gacaggcctg
tccgacccctg
gacaggcctg
ggtaccgcag
gttaacgggtc
gtcgctcctg
cccttggtac
cagtgatggc
tgaggccctt
ctactccctg
gttccaggcg
tgctgcgagc
tgcccttgcg
gtactgcgtg
cctggtgctc
gggggcccc
gcagtgcctgg
cccccatcct
catgaccatc
cctgtgccaa
gactgagaca
gacgctgggtg
gccccggggc
ggccttccca
ggccttccctg
ccgtggctgg
ggagcgcgcc

Gastric
Inhibitory
Polypeptide
Receptor

1808

127

Accession	Gene	Protein	Species
128	Gastric Inhibitory Polypeptide Receptor	NP_000155.1	Homo sapiens
1808	Gastric Inhibitory Polypeptide Receptor	NP_000155.1	Homo sapiens
1813	Gastrin-Releasing Peptide Receptor	NM_005314	Homo sapiens
129	Gastrin-Releasing Peptide Receptor	NM_005314	Homo sapiens

130	1813	Gastrin- Releasing Peptide Receptor	NP_005305.1	<p> gctctctggc cttaccacac tcttgcgtga accctttgc cctctacctg ctgagcaaga gtttcaggaa acagttcaac actcagctgc tctgttgcca gcttgccctg atcatccggt ctcacagcac tgaaggagat acaacctgca tgacctccct caagagtacc aacctcccg tgccacctt tagcctcatc aatggaaca tctgtcacga gcggtatgc tagattgacc cttgattttg cccctgagg gacggttttg ctttatggct agacaggaac ccttgcatcc attgttgtgt ctgtgccctc caaagacct tcagaatgct cctgagtgtg gtaggtggg gtggggaggc ccaaatgatg gataccatt atattttgaa agaagc MAINDCFLIN LEVDHFHCN ISSHSADLPV NDDWSHPGIL YVIPAVGYI ILIIGNIT P LIKIFCTVKS MRNVNLFIS SLALGDLILL ITCAPVDASR YLADRWLFGR IGCKLIPFIQ LTVSGVSVFT LTALSADRYK AIVRPMDIQA SHALMKICLK AAFIWIISML LAIPEAVFSD LHPHEESTN QTFISCAPYP HSNEHPKIH SMASFLVFYV IPLSIIISVY YFIKNILOS AYNLPVEGNI HVKKQIESRK RLAKTVLVFV GLFAPCWLPN HVIYLYRSYH YSEVDTSMLH FVTSICARLL AFTNSCVNPF ALYLLSKSFR KQENTQLLCC QPGLIIRSHS TGRSTTCMTS LKSTNPSVAT FSLINGNICH ERYV </p>	Homo sapiens
131	1814	Cholecystoki nin B Receptor	NM_000731	<p> atggagctgc tcaagctgaa ccggagcgtg cagggaaaccg gaccggggcc gggggcttcc A ctgtgcgccc cgggggcgcc tctctcaac agcagcagtg tgggcaacct cagctgcgag cccctcgca ttcgcgagc cgggacaga gaattggagc tggccattag aatcactctt tacgcagtga tottctgat gacggttga ggaatatgc tcatcatcgt ggtcctggga ctgagccgcc gctgaggac tgtaccaat gccttctccc tctcactggc agtcagcgac ctctgctgg ctgtggcttg catgcccttc acctcctgc ccaatctcat gggcacattc atctttggca ccgtcatctg caaggcggtt tctacacctc tgggggtgtc tgtgagtgtg tccacgctaa gcctcgtggc catcgactg gacggtgaca gcgccatctg ccgaccactg caggcacgag tbtggcagac gcgtccccc gcggtctcgc tgattgtagc cagtggtctg ctgtccggac tactcatggt gccctacccc gtgtacactg tctgcaaac agtggggcct cgtgtgctgc agtgcgtgca tgcgtggccc agtgcgctgg tccgccagac ctggtccgta ctgctgcttc tgctcttgtt ctccatcccc ggtgtggtta tggccgtggc ctacgggctt atctctcgcg agctctactt agggcttcgc tttgacggcg acagtgcag cgacagccaa agcagggtcc gaaaccaagg cgggctgcca ggggctgttc accagaaagg gcgttgccgg cctgagactg gcgcggttgg cgaagacagc gatggctgct acgtgcaact tccacgttcc cgccctgcc tggagctgac ggcgctgac gctccagggc cgggatccgg ctcccggccc acccaggcca agctgctggc taagaagcgc gtgggtgcga tgttgcgtgt gacgttgtg ctttttttct tgtgttgtt gccagtttat agtgccaaca cgtggcgccg ctttgatggc ccgggtgcac accgagcact ctccgggtgt cctatctcct tcattcactt gctgagctac gcctcgccct gtgtcaaccc cctggtctac tgcctcatgc accgtcgctt tgcgcaggcc tgccctggaaa cttgcgctcg ctgctgccc cggcctccac cagctcgccc cagggtctt cccgatgagg accttcccac tccctccatt gcttcgctgt ccaggcttag ctacaccac atcagcacac tgggcccctgg ctgaggagta gaggggccgt gggggttgag gcagggcaaa tgacatgcac tgaccttcc agacatagaa aacacaaacc acaactgaca caggaaacca acacccaaag catggactaa ccccaacgac agggaaaggt agcttacctg acacaagagg aataagaatg gagcagtaca tgggaaagga ggcattgctc tgatatgga ctgagcctgg cccatagaaa catgacactg accttgaga gacacagcgt ccctagcagt gaactattc </p>	Homo sapiens

132	1814	Cholesteryl n B Receptor	NP_000722.1	<p> taccacagtgg gaactctgac aagggctgac ctgcctctca cacacataga ttaatggcac tgattgtttt agagactatg gaggctggca caggactgac tctgggatgc tctagttttg acctcacagt gaccttccc aatcagcact gaaaatacca tcaggccctaa tctcatacct ctgaccaaca ggcgtttctg cactgaaaaa gtctcttcac cctttccagt taaggaccgt ggccctgccc tctccttctt tcccaaaactg ttcaagaaat aataaattgt ttggcttctt cctgaaaaaa aaaaaaaa aaaaaaaa aggaattcc MELLKLNRSV QGTGPGPGAS ICRPGAPLIN SSSVGNLSCE PPRIAGATR ELELAIRITL P YAVIFLMSVG GNMLIIVVLG ISRRRLRTVN AFLLSLAVSD LLLAVACMPF TLLPNLMGTF IFGTVICKAV SYLMGVSVSV STLSIVAIAL ERYSAICRPL QARVMQTRSH AARVIVATWL LSGLIMVPYP VYTVVQPVGP RVLCQVHRWP SARVRQTSV LLLLLFFIP GVMMAVAYGL ISRELYLGLR FDGSDSDSQ SRVRNQGLP GAVHQNGRCR PETGAVGEDS DGCYVQLPRS RPALELTALT APGPGSGSRP TQAKLLAKKR VVRMLLVIV LFLCWLPIVY SANTWRAFDG PGAHRAISGA PISFIHLLSY ASACVNPLVY CFMHRFRQA CLETARCCP RPPRARPRAL PDEDPTPSI ASLSRLSYTT ISTLPGP ggatctggca gcgcccgaa gacgagcggg caccggcgcc cgaccgagc gcgccagag A gacggcgggg agccaagccg acccccagc agcgccgcgc gggccctgag gctcaaggg gcagcttcag gggaggacac ccaactggcc aggacgccc aggtctgtgt gctctgccac tcagctgccc tcggaggagc gtacacacac accaggactg cattgcccc cattgacgac cctgccagat gtgggaggca gctagctgac cagaggcatg cccccctgcc agccacagcg accctgctg ctgttctgc tgcgtctgac ctgccagcca caggtcccc cgcctcaggt gatggacttc ctgtttgaga agtggaaagt ctacggtgac caggtgcacc acaacctgag cctgctgccc cctcccacgg agctggtgtg caacagaaac ttccgacaagt attcctgctg gcgggacacc cccgccaata ccagggccaa catctcctgc cctgggtacc tgccttgcca ccacaaagt caacaccgt tctgtgtcaa gagatgcggg ccgacggtc agtgggtgcg tgagcccccg ggcagacctt ggcgtgatgc ctcccagtc cagatggatg gcgaggagat tgaggtccag aggaggttg ccaagatgta cagcagcttc caggtgatgt acacagtggg ctacagcctg tccctggggg cctgctctct cgccttgccc atcctggggg gctcagcaa gctgactgc accgcaatg ccatccacgc gaatctgttt gctccttctg tctgaaagc cagctccgtg ctggtcattg atgggctgct caggaccccgc tacagccaga aaattggcga cgacctcagt gtcagacctt ggtcagtgta tggagcgtg gctggctgcc gtgtggcgcg ggtgttcagt caatatggca tctgtggcaa ctactgctg cctgctgtgg agggcctgta cctgcacaa ctgctgggccc tggccacctt ccccgagagg agcttcttca gctctacct gggcatcgcc tggggtgccc ccactgctgtt cgtcgtcccc tggcagtggt tcaagtgtct gttcgagaac gtcagtgctt ggcacagcaa tgacaacatg gcttctgtgt ggtacctgcg gttccccgtc ttcttgcca tctgatcaa ctcttctc ttcgtccgca tctgtcagct gctcgtggcc aagctgcggg caggcagat gcaccacaca gactacaagt tccggctggc caagtccacg ctgacctca tccctctgct gggcgctccac gaagtgtct tgccttctt gacggacgag cagccccagg gcacctgct ctcgcgcaag ctcttcttct acccttctt cagctctctc cagggcctgc tgggtggtgt cctctactgc ttcctcaaca aggaggtgca gtcggagctg cggcgccgtt ggcaccgctg gcgctgggc aaagtgtctat gggagagcgcg gaacaccagc aaccacaggg cctcatcttc gcccgccac gccctccca gcaaggagct </p>	Homo sapiens
133	1834	Glucagon Receptor	NM_000160	<p> caccgacacc cccgccaata ccagggccaa catctcctgc cctgggtacc tgccttgcca ccacaaagt caacaccgt tctgtgtcaa gagatgcggg ccgacggtc agtgggtgcg tgagcccccg ggcagacctt ggcgtgatgc ctcccagtc cagatggatg gcgaggagat tgaggtccag aggaggttg ccaagatgta cagcagcttc caggtgatgt acacagtggg ctacagcctg tccctggggg cctgctctct cgccttgccc atcctggggg gctcagcaa gctgactgc accgcaatg ccatccacgc gaatctgttt gctccttctg tctgaaagc cagctccgtg ctggtcattg atgggctgct caggaccccgc tacagccaga aaattggcga cgacctcagt gtcagacctt ggtcagtgta tggagcgtg gctggctgcc gtgtggcgcg ggtgttcagt caatatggca tctgtggcaa ctactgctg cctgctgtgg agggcctgta cctgcacaa ctgctgggccc tggccacctt ccccgagagg agcttcttca gctctacct gggcatcgcc tggggtgccc ccactgctgtt cgtcgtcccc tggcagtggt tcaagtgtct gttcgagaac gtcagtgctt ggcacagcaa tgacaacatg gcttctgtgt ggtacctgcg gttccccgtc ttcttgcca tctgatcaa ctcttctc ttcgtccgca tctgtcagct gctcgtggcc aagctgcggg caggcagat gcaccacaca gactacaagt tccggctggc caagtccacg ctgacctca tccctctgct gggcgctccac gaagtgtct tgccttctt gacggacgag cagccccagg gcacctgct ctcgcgcaag ctcttcttct acccttctt cagctctctc cagggcctgc tgggtggtgt cctctactgc ttcctcaaca aggaggtgca gtcggagctg cggcgccgtt ggcaccgctg gcgctgggc aaagtgtctat gggagagcgcg gaacaccagc aaccacaggg cctcatcttc gcccgccac gccctccca gcaaggagct </p>	Homo sapiens

134	1834	Glucagon Receptor	NP_000151.1	<p> MPPCQQRPL LLLLLLLACQ PQVPSAQVMD FLFEKWLYG DQCHNLSLL PPTELVCNR P TFDKYSCWPD TPANTTANIS CPWLPWHHK VQHRFVKRC GPDGQWVRGP RGQPWRDASQ CQMDGEEIEV QKEVAKMYSS FQVMYTVGYS LSLGALLAL AILGLSKLH CTRNAIHANL FASFVLKASS VLVIDGLLRT RYSQKIGDDL SVSTWLSLSDGA VAGCRVAADF MQYGIVANYC WLLVEGLYLH NLLGLATLPE RSFFSLYLGI GWGAPMLFVV PWAVVKCLFE NVQCWTSNDN MGFWILRFP VELAILINFF IFVRIVQLLV AKLRARQMHY TDYKFRLLAKS TLTLLPLLV HEVVFVAFVTD EHAQGTILRSA KLFEDLFLSS FQGLLVAVLY CFLNKEVQSE LRRRWHRWRL GKVLWEERN T SNHRASSSPG HGPPSKELQF GRGGGSDSS AETPLAGGLP RLAEPSF </p>	Homo sapiens
135	1925	Gonadotropin -Releasing Hormone Receptor	NM_000406	<p> ttggttgctg gtccacttac aaacactttt catatttgta tgtctttcca atggttatcc A tgttttgttc atttcaggca tatggccctg atcagattaa ctgacatgat gtatatgcaa agccttttga gttcttcaga aaaataaatt atcttattca agactgattg cttataagga acttattata gctaatatag taggcacaaat ttttttttga attctcttag atgagtcaga acttagtttt gatgtaggta aaaattttat ggtcacaaat ctcagggtgtg agaaaatctc tttcttgat actctatata aatagaggat ataaatattt caagtctgga agtagtgaga gaagctggta attctggaca tatagtaca gtcaaaaagg agctcaggta caggactggt ctaagctgct caagattcag gagacagoca gtacacagag agctcgagga aataatacag atatatctaa aacacttacc taaccttctg tggtaacaaag ctctttaaag gggctggatg atgttggtgtt cactttttat caccagcaaa ggttaagata atgtatatag taaatattta gtaaccattt attaaataaa taaatattta agacagata aacaagata ataaatgaac caataagaat gcaccatcta agtcaaaata gccactttta tccttaacat tgtacctgct ttggctgctg cagaagcaaa ctgttggtgca ttgacaaaat caagctgggtg atttaataaa ttccaatgta agtcttacc gtattgatga ataactatcc agcactacc atgaagttta aagaagcaac acagaaaaag ttctaagtgt gtcccaattt gaaatgatca gataacctat aaaagaacat attcatatta tactaacata aacacatata aatgcactta cagcagttac acagtattct cttcaataac tagtttctt atgcattaat gtgtaataac agcaactaca atatttagat aattataaaa accaaggcaa taatttaaaa actgattaac cgttttactc taacttaagc atggattgga tcagtaagat tgattaataa atttgaatgc agtcagttgg atgatttcta atttaagtt ttaatttgtt gtagaataat ttttaagtga tatattgttc cagtgttga gtgtcaaca gtgtgtttga aaagaaaaac aaagaatgtt ttgagaatgt gttaattcct taagacaatg gattttaatt ggatctgttg ttttcatttt tcttcattat cattatacat ctgtatgttg gacagaacac taacactaaa tagtttttag aaagtgtttt ttgaagtat ttaaatcata atatcatgac tgacttttga attcaaaatt aggcgtgtgac tatccttctt cacttaggaa gagtgtgtg aaagccagac catctgtga ggtgctacag ttacatgttg ccctcagaat gcgttttgcc tgcctgtgtt tagcactctg ttggattacc </p>	Homo sapiens

136	1925	Gonadotropin NP_000397.1 -Releasing Hormone Receptor	aatacacaaa acaagttaac ctttgatctt tcacattaag tatctcaggg aaaaaattg acatacgtct aaacctgtga cgtttccatc taagaaggc agaaaaaaa catggacttt agattcggtt acaataaaat atcagatgca ccagagacac aaggcttgaa gctctgtcct gggaaaatat ggcaaacagt gcctctcctg aacagaatca aatcacatgt tcagccatca acaacagcat cccactgatg cagggaacc tcccactgt gacctgtctt gaaaagatcc gagtgcggtt tactttcttc ctttttctgc tccctcgcac ctttaattgct tctttctgtg tgaaacttca gaagtggaca cagaagaaag agaaaggga aagctctca agaatgaagc tgctcttaaa acatctgacc ttagccaacc tgttgagagac tctgattgtc atgccactgg atgggatgtg gaacattaca gtccaatggt atgctggaga gttactctgc aagttctca gttatctaaa gcttttcttc atgtatgcc cagccttcat gatgggtggtg atcagcctgg accgtccctt ggctatcacg aggcccttag ctttgaaaaa caacagcaaa gtcggacagt ccatgggttg cctggcctgg atcctcagta gtgtctttgc aggaccacag ttatacatct tcaggatgat tcatctagca gacagctctg gacagacaaa agttttctct caatgtgtaa cacactgcag tttttcacaa tgggtggcatc aagcatttta taacttttc accttcagct gcctcttcat catccctctt tcatctcag gacctcagc tgcaaaaaatc atcttcaccc tgacacgggt ccttcacag gacccccag aactacaact gaatcagctc aagaacaata taccaagagc acggctgaag actctaaaaa tgacgggtgc atttgccact tcatttactg tctgctggac tccctactat gtcttaggaa tttggtattg gtttgatctt gaaatgttaa acaggtgtgc agaccacgta aatcacttct tctttctctt tgccctttta aacctatgct ttgatccact tatctatgga tattttctc tgtga	VFHFFLLSA TFNASFLKL P QKWTQKKEG KLSRMKLL KHLTLANLLE TLIVPLDGM WNITVQWYAG ELLCKVLSYL KLFSMYAPAF MMVISIDRS LAITRPLALK SNSKVGQSMV GLAWILSSVF AGPQLYIFRM IHLADSSGT KVFSQCVTHC SFSQWWHQA FYNFFTSCLF IIPLFIMLIC NAKIIFTLTR VLHQPHELQ LNQSKNNIPR ARLKTLKMTV AFATSFTVCW TPYYVLGIWY WFDPEMLNRL SDPVNHFFFL FAFLNPCFDP LIYGFSL	Homo sapiens
137	1945	Opsin, green-sensitive	atggcccagc agtggagcct ccaaaggctc gcaggccgccc atccgcagga cagctatgag A gacagcacc agtcagcat cttcacctac accaacagca actccaccag aggcccttc gaaggccga attaccat cgctccaga tgggtgtacc acctaccag tbtctggatg atctttgtgg tcattgcac cgttttca aatgggcttg tctggcgcc caccatgaag ttcaagaagc tgcgccacc gctgaactgg atcctgggtga acctggcggt cgctgacctg gcagagaccg tcatcgccag cactatcagc gttgtgaacc aggtctatgg ctacttcgtg ctgggccacc ctatgtgtgt cctggaggcc tacaccgtct ccctgtgtgg gatcacaggt ctctggtctc tggccatcat ttcctgggag agatggatgg tggctctgcaa gccctttggc aatgtgagat ttgatgcaa gctggccatc gttggcattg ccttctcttg gatctgggct gctgtgtgga cagccccgcc catcttttgt tggagcaggt actggcccc cgccctgaag acttcacgg gccagacgt gttcagcgcc agctcgatcc ccgggggtgca gttctacatg attgtcctca tgggtcacctg ctgcacacc ccaactcagca tcatcgtgct ctgtacctc caagtgtggc tggccatccg agcgggtggca aagcagcaga aagagctgca atccaccag aaggcagaga aggaagtgc gcgcattggt gtggtgatgg tctggcatt ctgctctgc tggggaccat acgcttctt cgcattgctt gctgctgcca acctggcta cccctccac	atccgcagga cagctatgag A actccaccag aggcccttc acctaccag tbtctggatg caccatgaag cgctgacctg ctacttcgtg gatcacaggt gccctttggc gatctgggct cggcctgaag gtcttacatg ctgtacctc atccaccag ctgctctgc acctggcta	Homo sapiens

138	1945	Opsin, green- sensitive	NP_000504.1	MAOQWSLQRL AGRHPQDSYE DSTQSSIFTY TNSNSTRGPF EGPNYHIAPR WVYHLTSVWM P IFVVIASVFT NGLVLAATMK FKLRHPLNW ILVNLAVAL AETVIASSTIS VNQVYGYFV LGHPMCVLEG YTVSLCGITG LWSLAISWE RWMVVKPFG NVREFDAKLAI VGIAFSWIWA AVWTAPPIFG WSRYPWPHGLK TSCGPDVFSG SSYPGVQSYM IIVMTCCIT PLSIIVLCYL QVWLAIKRAVA KQKSESESTQ KAEKEVTRMV VVMVLAFCFC WGPYAFFACE AAANPGYPFH PLMAALPAFF AKSATIYNPV IYVFMNRQFR NCILQLFGKK VDDGSELSSA SKTEVSSVSS VSPA	Homo sapiens
139	1951	Growth Hormone Secretagogue Receptor	NM_004122	atgtggaacg cgagccacg cgaagagccg gggttcaacc tcacactggc cgacctggac A tgggatgctt ccccggaac cgactcgctg ggcgacgagc tgcctgagct cttccccgcg ccgctgctgg cggcgctcac agccactgc gtggcactct tctgtgtggg tatcgctggc aacctgctca ccatgctggt ggtgctgcgc ttccgcgagc tgcgcaccac caccaacctc tacctgtcca ccatggcctt ctccgatctg ctcatcttcc tctgcatgcc cctggacctc gtcgccctct ggagtagcg gccctggaac ttccgagacc tcctctgcaa actcttccaa ttcgtcagtg agagctgcac ctacgccacg gtgctacca tcacagcgtc gagcgtcgag cgctacttcg ccactgctt cccactccgg gccaaagtgg tggtaaccaa ggggctgggtg aagctgggtca tcttcgtcat ctgggcccgtg gccttctgca gcgccgggccc catcttctgtg ctagtcgggg tggagcacga gaacggcacc gaccttggg acaccaacga gtgccgcccc accgagtttg cggcgctc tcgactgctc tggactgctc acggtcatgg tgtgggtgct cagcatcttc ttctctcttc ctgtctctg tctcacggtc ctctacagtc tcctcggcag gaagctgtgg cggagggaggc gcggcgatgc tctcgtgggt gcctcgtcga gggaccagaa ccacaagcaa accgtgaaa tgctgggtgg gtctcagcgc gcgctcaggc ttctctctgc gggctcctatc ctctccctgt gccttctccc ttctctctga	Homo sapiens
140	1951	Growth Hormone Secretagogue Receptor	NP_004113.1	MNATPSEEP GENLTADLD WDASPGNDSL GDELLQLFPA PLLAGVTATC VALFVVGIAG P NLLTMLVVSF FRELRTTNL YLSSMAFSDL LIFLCMPLDL VRLWQYRPWN FGDLCKLFQ FVSECTYAT VLTITALSVE RYFAICFPLR AKVVTGKRV KLVIWVAV AFCSAGPIFV LVGVEHNGT DPWDNECRP TEFAVRSGLL TVMVVSSIF FFLPVFCLTV LYSILGRKLW RRRGDAVVG ASLRDQNHQ TVKMLGGSQR ALRLSLAGPI LSLCLLPSL	Homo sapiens
141	1954	Growth Hormone- Releasing Hormone Receptor	NM_000823	agcagccaag gcttactag gctgggtggag ggagccactg ctgggctcac catggaccgc A cggatgtggg gggccacgt cttctgcgtg ttgagccctg taccgacctg attgggccac atgcaccag aatgtgactt caccaccag ctgagagagg atgagagtcg ctgtctacaa gcagcagagg agatgccaa caccacctg ggtgccccg cgacctgga tggctgtctg tctgggcca cggcaggtc tggcgagtgg gtcacctcc cctgcccgga ttctctctt cacttcagct cagagtcagg ggcgtgtaaa cgggattgta ctatcactgg ctggtctgag cccttccac cttacctgt ggctgcccct gtgcctctgg agctgctggc tgaggaggaa tcttactct ccacagtga gattatctac accgtgggcc atagcatctc tatttagcc ctcttcgtgg ccatcaccat cctggttgc ctcaaggagg tccactgcc cgggaactac gtccacacc agctgttcac cacttttata ctcaaggcgg gacgtgtgtt cctgaaggat	Homo sapiens

142	1954	Growth Hormone- Releasing Hormone Receptor	NP_000814.1	<p>gctgcccctt tccacagcga cgacactgac cactgcagct tctccactgt tctatgcaag gtctctgtgg ccgcccctcca ttctgccacc atgaccaact tctagctggct gttggcagaa gcgctctacc tgaactgcct cctggcctcc accctcccga gctcaaggag agccttctgg tggctggttc tcgctgggtg gggctgctcc gtgctcttca ctggcacgtg ggtgagctgc aaactggcct tcgaggacat cgcgtgctgg gacctgagc acacctcccc ctactgggtg atcatcaaa ggcctattgt cctctcggtc ggggtgaact ttgggctttt tctcaatatt atccgcctcc tggtaggaa actggagcca gctcaggcca gctccatac ccagctctcag tattggcgtc tctccaaagc gacacttttc ctgatccacc tcttggaat tcactacatc atcttcaact tctggccaga caatgctggc ctgggcatcc gctcccccct ggagctggga ctgggttccct tccaggcctt catgtgtgct atctctact gcttctctaa ccaagaggtg aggactgaga tctcacggaa gtggcatggc catgacctg agcttctgcc agcctggagg accctgcta agtgaccac gccttccgc tcggcggaat tgggcagcta ccacgggtct taggtgcct catcacgcca ctggagtcca cacttgaatt tgggcagcta ccacgggtct gccatgctct ggaggagcaa gggggccaca tccccacc agctgtacc cagcccgggg caggtgcagc ccttccctcc tctctctgca tctgactctc tttgaggtc cctgtatgtc tacctctgac ttctgtggtc cctctgtgct tgcctctcat cactctctt actggggcct ggggctctag cccaaggctc agaggagcca ataaacctg aaatgaaaa aaaaaa MDRRMGAHV FCVLSPLPTV LGMHPECDF ITQLREDESA CLOAAEMPN TTLGCPATWD P GLLCWPTAGS GEVWTLPCPD FFSHFSSSG AVKRDCITG WSEPPFPYV ACPVPLELLA EESYFSTVK IYTVGHSIS IVALFVAITI LVALRRLHCP RNYVTHQLFT TFIKAGRVF LKDAALFHS DFDHCSESTV LCKVSVASH FATMNFSL LAEAVINCL LASTSPSSRR AFWWLVLAGW GLPVLFTGTW VSKLAFEDI ACWDLDDTSP YWIIKGPV LSVGVNFGFLF LNIIRILVRK LEPAQGLSHT QSQYWRLSKS TLFILPLFGI HYIIFNLPD NAGLGIRLPL ELGLGSFQGF IVAILYCFLN QEVRTSIRK WHGHDPPELLP AWRTRAKWTT PPSRAAKVLT</p>	Homo sapiens
143	2120	Histamine H1 Receptor	NM_000861	<p>cagggagaca tacaggattt aagaagccca tcatggagaa gaccttcaat tacagagata A aaaagtthtt ctgtggaac aagttaacac tagatggcag ataacagact gaggagttag ctgcttctga ctcgattaaa aaggagtgga gccataactg gcggctgctc tticgccaat gagcctccc aattcctcct gcctcttaga agacaagatg tgtgaggga acaagaccac tatggccagc cccagctga tgcctctggt ggtggtcctg agcactatct gcttggctac agttaggctc aacctgctgg tgcgtatgac gctctctggt ggcggaagt gagcgaagc tccacactgt gggaaacctg tacatcgta cctctcgtt gcctctggt ggcggaagt atcgtgggtg ccgtcgtcat gcctatgaac atcctctacc tgcctatgct caagtgtga ctgggcccgc ctctctgctc cttttggtt tccatggact atgtggccag cacagcgtcc atttctagt tcttctatcc gtgcattgat cgctaccgct tgcctcagca gcccctcagg taccttaagt atcgtaccac gacccagacc tcggccacca ttctgggggc ctggttcttc tcttttctgt ggtttattcc cattctaggc tggaaatcact tcatgcagca gacctcgtg gcgcgagagg acaagtgtga gacagattc tatgatgta cctggttcaa ggtcatgact gccatcatca acttctacct gcccacctg ctcatgctct ggttctatgc caagatctac aaggccgtac gacaacactg ccagcaccgg gagctcatca ataggtccct ccttctcttc tcagaaatta agctgaggcc agagaacccc aaggggggat ccaagaaacc agggaaggag tctccctggg aggttctgaa</p>	Homo sapiens

aaggaagcca aaagatgctg gtggtggtc tgcttgaag tcaccatccc aaaccccaa
ggagatgaaa tcccagttg tcttcagcca agagatgat agagaagtag acaaacctcta
ctgctttcca ctgtatattg tgcacatgca ggtgcggca gagggagta gcagggacta
tgtagccgtc aaccggagc atggccagct caagacagat gtagtgat agccaatcct tctctgaac
tggggccagc gagatatcag aggatcagat agacagacc aggcaaggc aaattgagga gtgggtctaa
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tgtatctggg atcctctgct ggtaccctta ttcatcttc ttcatggtca ttgctttctg
ggcagccttc atcctctgct ggtaccctta ttcatcttc ttcatggtca ttgctttctg
caagaactgt tgcaatgaac atttgcacat gttcaccatc tggctgggct acatcaactc
cacactgaac cccctcatc acccctgtg caatgagaac ttcaagaaga cattcaagag
aattctgcat attcgtcct aaggaggct ctgaggggat gcaacaaaat gatccttatg
atgtccaaca agaaataga ggacgaaggc ctgtgtgttg ccaggcaggc acctgggctt
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gaagaacagc agatggcgt gtcagcaga gagattgaac tttagaggag aagcagaatc
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ataaaagaga gagaaatca gacctgggt gacctcct gctcctcagg aactatggga
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cacaaaaat atctgggcat ggtggggcat gctgtagtc ccactactt gggaggccga
ggcacagaa tcgcttgaac ccgggagggt gaggtgccc tgagccaaga tcacgccact
gcactccagc ctgggcaaca gagcaagact ctgtctcaa aaaaaata caatattta
acaatgtgcc ctcttaagt tgacagata cacatacacg gtattccaa gagtgtggc
agctcaaat gatattttg agtagacgaa cagtgacat ggagtcccc tgcacctacg
gaagggacg ctttgaagga accaagtga ttttatctg tgagtctgt tgtgttctc
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ttggtgctaa accacaatat gtatagcaca tggagtgcct gtacaagctg atgtttgta
tttgtgttc ctcttgcat gatctgtcaa agtgagatat tttacctgc ctaaaaatg

Homo
sapiens

P

144 2120 Histamine H1 NP_000852.1
Receptor

atgtttaaaa gcataactcta tgtgatttat ttatttctac ctttctgagt ctcttggact
aagaagatgt tttagaatgt accatcaaat gtttaacagag tttagatatg gctttctctt
tggtttctca tcacatttgt aatgtcttt tcaaaagat ttactttttg taaaaagctt
cattctcact ctgctttgca tcccccaaac ttcttcttca aaacgggggg agtttaggag
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agaagacctc cctgtgagag agtgcctct cagggtccct caggaccaaa gaacactcga
aaagagcact tcacacagac aagtggctaa ggtgccatta ttacacctga acaatcaag
caactagtgg agagaactga ttgtgagctc
MSLPNSSCLL EDKMGCKNT TMASPOLMPL VVVLSTICLV TVGLNLVLVY AVRSERKLHT
VGNLYIVSLV VADLIVGAV MEMNIIYLIM SKWSLGRPLC LFWLSMDYVA STASIFSVEI
LCIDRYRSVQ QPLRYLKYRT KTRASATILG AWFLSFLWVI PILGNHFMQ QTSVRREDKC
ETDFYDVTFW KMTAIIINFY LPTLLMLWFY AKIYKAVRQH CQHRELINRS LPSFSEIKLR
PENPKGDAKK PGKESPWEVL KRKPKDAGGG SVLKSPSQTP KEMKSPVVS QEDDREVDKL
YCFPLDIVHM QAAAEGSSRD YVAVNRSHGQ LKTDEQGLNT HGASEISEDQ MLGDSQSFSR
TDSDTTETA PGKGLRSGS NTGLDYIKFT WKRLRSHSRQ YVSGLHMNRE RKAQQLGFI
MAAFILCWIP YFIFFMVIAF CNKCCNEHLH METIWLGYIN STLNPLIYPL CNENFKKTFK
RILHRS

Homo
sapiens

A

145 2121 Histamine H2 NM_022304
Receptor

ctctggccct ccactgactc cagagagggga gatccccagt acttgactcc atcacgcaga
tgaggagcagg caccagctat ggagagggat acagctgcgt ctccacatga cccatcctgc
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aacgcgggc tccgcaacct gaccaattgt tcatcgtgt ccttggctat cactgacctg
ctcctcgcc tctgtgtgct gcccttctt gccatctacc agctgtcctg caagtggagc
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gatgggctgg tcaccttcta cctccgcta ctgatctat gcatcaccta ctaccgcatc
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aatgaggtgt tagaagccat cgttctgtgg ctggggtatg ccaactcagc cctgaacccc
atcctgtatg ctgcgctgaa cagagacttc cgcacgggtg accaacagct cttctgtgc

146	2121	Histamine H2 Receptor	NP_071640.1	<p>aggctggcca accgaaact ccacaaact tcttgaggt ccacgcctc tcagctgtcc aggacccaaa gccgagaacc caggcaaac cctgaagct ccaggtgtgg agtgggacag agtcacggc ccccaggga gccacagaca ggaatagcc ctgagccattg gtgcacagga tgggggcaat cccgggggat gctactgatg ggaatgatta agggagctgc tgttaggtg gtgctggttt atgtctagg aactcttcat gagcactttg taaacacccct cttgcttaat cctcccaacg gcccccaag gtagaactta gctccctttt aaaaggagca cattaaaatt ctcagagagc ttggcaaggg ccgcacagct ggggcat</p>	Homo sapiens
147	2783	Opioid Receptor, kappa 1 (OPRK1)	NM_000912	<p>MAPNGTASSF CLDSTACKIT ITVVLAVLIL ITVAGNVVC LAVGLNRRRL NLNCFIVSL P AITDLLGLL VLPFSAIYQL SCWSEFGKVF CNIYTSLDVM LCTASILNLF MISLDRYCAV MDPLRYPVLV TPVRVAISLV LIWVISITLS FLSIHLGWS RNETSNGNHT TSKCKVQWNE VYGLVDGLVT FYLPLLMCI TYRIFKVAR DQAKRINHIS SWKAATIREH KATVTLAAM GAFTICWFPY FTAIFYRLR GDDAINEVLE AIVLWLYAN SALNPILYAA LNRDFTGYQ QLECCRLANR NSHKTSLRSN ASQLSRTQSR EPRQEEKPL KLQVWSGTEV TAPQGATDR tgacgcaact accatggaat ccccgattca gatcttcgcg ggggagcctg gcctacactg A cgccccgagc gctgcctgc ccccaacag cagcgccctg ttccccgct gggccgagcc cgacagcaac gtcagcgccg gctcgaggga cgcgcagctg gagcccgcg acatctcccc ggccatcccc gtcataca cggcggcta ctcctagtg ttcgtcgtg gcttggtggg caactcgtg gtcattgtcg tgatcatccg atacacaaag atgaagacag caacaaacat ttacataatt aacctggctt tggcagatgc tttagttact acaaccatgc ccttcagag tacggtctac ttgatgaatt cctggcctt tggggatgtg ctgtgcaaga tagtaatttc cattgattac tacaacatgt tcaccagcat cttcaccttg accatgatga gctgggaccg ctacattgcc gtgtgccacc cctggaaggc ttgggacttc cgcacacct tgaaggcaaa gatcatcaat atctgcatct ggctgctgc tgcatctgtt ggcactcttg caatagctct tggaggcaac aaagtcaggg aagacgtcga tgcatttgag tgcctcttg agttccaga tgatgactac tctggtggg acctctcat gaagatctgc gtcttctatc ttgctctcgt gatccctgtc ctcataca tcgtctgcta caccctgatg atcctgcgtc tcaagagcgt cggctcctt tctggctccc gagagaaaga tcgcaacctg cgtaggatca ccagactggt cctggtggtg gtggcggtt tctgctctg ctggactccc attcacatat tcatcctggt ggaggtctg gggagcacct cccacagcac agtgccttc tccagctatt acctctgcat cgcttaggc tataccaaca gtacgctgaa tccattctc tacgccttc ttgatgaaaa cttcaagcgg tgtttccggg acctctgct tccactgaag atgaggatgg agcggcagag cactagcaga gtcgaaata cagttcagga tctgcttac ctgaggga tcatgggat gaataaacca gtatgactag tctgaggatg gtcttcgtac ag</p>	Homo sapiens
148	2783	Opioid Receptor, kappa 1 (OPRK1)	NP_000903.1	<p>MESPIQIFRG EPGPTCAPSA CLFPNSSAWF PGWABPDSNG SAGSEDAQLE PAHISPAIPV P IITAVYSVVF VGLVGNLSV MFVIIRYTKM KTATNIYIFN LALADALVTT TMPFQSTVYL MNSWPFQDVL CKIVISIDYY NMFTSIFTLT MMSVDRIYAV CHPVKALDFR TPLKAKINI CIWLLSSSVG ISAILVGGTK VREDVDVIEC SLQFPDDDS WWDLFMKICV FIFAFVIVL IIIVCYTMI LRIKSVRLLS GSREKDRNLR RITRLVLVV AVFVVCWTPI HIFILVEALG STSHSTAALS SYFICIALGY TNSSLNPILY AFLDENFKRC FRDFCFPLKM RMERQSTSRV RNTVQDPAYL RDIDGMNKPV</p>	Homo sapiens
149	2964	Luteinizing	NM_000233	<p>ggccgccccat gaagcagcgg ttctcggcg tgcagctgct gaagctgctg ctgctgctgc A</p>	Homo

Hormone/Chor
iogonadotrop
in Receptor

sapiens

agccgcccgt gccacgagcg ctgcccgcgagg cgctctgccc tgagccctgc aactgcgtgc
ccgacggcgc cctgcgtgc cccggcccca cggccggctct cactcgacta tcaattgcct
acctccctgt caaagtatgc ccattctcaag ctttcagagg acttaattgag gtcataaaaa
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cattataaa tcttcccga ttaaaatact tgagcatctg taacacaggc atcagaaagt
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cactcaaaat atatggaat ggatttgaag aagtacaaaag tcatgcattc aatgggacga
cactgacttc actggagcta aaggaaaaag tacatctgga gaagatgcac aatggagcct
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ggtgcagcac tgctggcttt ttcaactgtat tcgcaagtga actttctgtc tacacctca
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tgcgattaaag acatgccatt ctgattatgc ttggaggatg gctcttttct tctctaattg
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ttatagaaat ttgacacag taattttgtt tgatgaatct tttaaaaaac agaggaggtta
tttgcataat ctttttttca ttttctgta tttgtattgca tctataaaa atattagttc
ataacagatc agaaatttaa aataaggggc tttttctctca ggtagtttga aaaacacact

150 2964 Luteinizing NP_000224.1 Hormone/Chor
iogonadotrop
in Receptor sapiens

ctagagatgc actgttcaat tcggtacgca ctaccacat gtggctaaat taaaattaaa
taaaatgaga aatgtagttt ctacgttgca ctacgtttca agttctcaat ggctacgtca
agttctcaat ggctacgtgt gactacgtgt taccatctgt gacacacag acacagaata
ttttcatcac cacagaaagt tctatctgtt tattataga gactttatg tatgccctat
ctggattcta cttattata atttaaggta aacatctgaa agcacattc agcctatttg
cttagtgaaa cattaagctg tagactgtaa actcctcgtg agtaggaacc ctgtctcagt
gcattttgtt ttcctgctc ctactcaag atcttgcaa tggtaacata caaatgtgct
gagttagaat tactctgaag ttatgaacaa tataatgaaa acaattttc cggcc

MKQRFSAIQ LKLLLLQPP LPRLREALC PEPNCVPDG ALRCPGPTAG LTRLSLAYLP P
VKVIPSQAFR GLNEVIKIEI SQIDSLEIE ANAFDNLNL SEILIQNTKN LRYIEPGAFI
NLPGLKYL SI CNTGIRKFPD VTKVPSESN FILEICDNLH ITTIPGNAFQ GMNNESTLTK
LYGNGFEEVQ SHAFNGTTLT SLELKENVHL EKMNGAFRG ATGPKTLDIS STKLQALPSY
GLESIQRLIA TSSYSLLKLP SRETFVNLLE ATLTPSHCC AFRNLPTKEQ NFHSISENF
SKQCESTVRK VSNKTLYSM LAESELGWD YEYGFCLPKT PRCAPPEPDAF NPCEIDIMGYD
FLRVLWLIN ILAIMGMTV LFVLLTSRYK LTVPRFLMCN LSFADFCMGL YLLLIASVDS
QTKGQYINHA IDWQTGSGCS TAGFTVFAS ELSVYTLTVI TLERWHTITY AIHLDDQKLRL
RHAILIMLGG WLFSSLIAML PLVGVSNYMK VSICFPMDVE TTLSQVYILT ILILNVVAFF
ITACAYIKIY FAVRNPELMA TNKDKIAKK MAILIFTDT CMAPISFFAI SAAFKVPLIT
VTNSKVLILV FYPINSCANP FLYAIFTKTF QRDFFLLLSK FGCKRRRAEL YRRKDFSAYT
SNCKNGFTGS NKPSQSTLKL STLHCQGTAL LDKTRYTEC

151 2976 Lysophosphat NM_001401
idic Acid
Receptor
Edg2 sapiens

acggcgcgct gggtcacac tgcctccgcg cggacgggct ttgtggttgg gggcgcgcgct A
gagagtgcca gtgagagtgt gggtgcgcgc ttgtggccgc gggtggcggtg ggtggccggtg
cggtcttgctg agcggcgctg caggagcgga ggctccctcg gcctcccgca ccacggcgcg
gaccgagccc ctggaggga gtgcgcgcag ccgcccgggc cgcggccct cctgtcccg
gccagggtaca cagcttctcc tagcatgact tgcattctgat cagcaacaa gaaaatttgt
ctcccgtagt tctggggcggt gttcacacc tacaaccaca gagctgtcat ggctggccatc
tctacttcca tccctgtaat ttcacagccc cagttcacag ccatgaatga accacagtc
ttctacaacg agtccattgc ctctctttat aaccgaagtg gaaagcatct tgccacagaa
tggaacacag tcagcaagct ggtgatggga ctgggaatca ctgtttgtat ctctcatg
ttggccaacc tattggtcat ggtggcaatc tatgtcaacc gccgttcca tttctctatt
tattacctaa tggctaattct ggtgctgca gacttctttg ctgggttggc ctactctat
ctcatgttca acacaggacc caatactcgg agactgactg ttagcacatg gctcctgctg
cagggcctca ttgacaccag cctgacggca tctgtggcca acttactggc tattgcaatc
gagaggcaca ttacgggtttt ccgcatgcag ctccacacac ggatgagcaa ccggcggtta
gtgggtgtca ttgtgttcat ctggactatg gccatcgtta tgggtgctat acccagtggtg
ggctggaaact gtatctgtga tattgaaaat ttttccaaac tggcaccct ctacagtgac
tcttacttag tcttctgggc cattttcaac ttggtgacct ttgtggtaac gtgtgttctc
tatgtctaca tctttggcta tgttcgccag aggaactaga gaatgtctcg gcatagttct
ggaccccgcc ggaatcgga taccatgatg agtcttctga agactgtggt cattgtgctt
ggggccctta tcatctgctg gactcctgga ttggttttgg tacttctaga cgtgtgctgt
ccacagtgcg acgtgctggc ctatgagaaa ttcttctctc tccttgctga attcaactct

152	2976	Lysophosphat idic Acid Receptor Edg2	NP_001392.1	<p> gcatgaacc ccatcattta ctctaccgc gacaaagaaa tgagcgccac ctttaggcag atcctctgct gccagcgagcag tgagaacccc accggcccca cagaaggctc agaccgctcg gcttcctccc tcaaccacac catcttggtt ggagttcaac gcaatgacca ctctgtggtt tagaacggaa actgagatga ggaaccagcc gtccctctct ggagataaaa cagccctccc ctaccaatt gccagggcaa ggtggggtgt gcagagggag aaaagtcaac tcattgtactt aaacactaac caatgacagt attgttccct ggacccacca agacttgata tatattgaaa attagcttat gtgacaacc ccatcttgat cccatccct tctgaaagta ggaagttgga gctcttgcaa tggaattcaa gaacagactc tggagtgtcc atttagacta cactaactag acttttaaaa gattttgtgt ggtttggtgc agtcagaat aaattctggc tagttgaatc cacaacttca ttatatata ggttccctt ttttattttt aaaggatacgt ttctacttaa taaacacgtt tatgacctatc agcatgtttg tgatggatga gactatggac tgccttttaa ctaccataat tccatttttt cctttacata ggaataactgt aagttggaat tatcttttgt ttagaaagca tgcattgtaat gtatgtatgc agtatgcctt acttaaaaa gttgttttagg tactaatgtt aaatcttcta ggaatataga cctagacttc aaagccagta tttgttttagg tcatgaagca acaatgtct taatcacaat attaactgtt taattaaaa gttgtaacaa gtataaaaca ggaatgtaa gtttattacc aaagtgtat gtattccaaa aaagtcatag aagatgaagc actataatat tgttcccata ttttataat accaaagta accttaatta ccagtatact agaggaaaat ttctgtatgc tttgtataat aatatactca tcatagaaaa cttgaaaaat gcagaaatgt ataaaaaagc aaaaatgatt actgataata tcacaaccca gaagtaacca cttttaaaaa gcaaccccca tgtatgccta tatgtgtatt gtatactttt tttacataat tggagtcata ctgtaaacag ttttataagt agatcttttt cattgcaaaa ttgccacatt ttcttatggc attaaaaatt ttacaaaaac ataattttta tggctatatt atattccatt taatggatgc aactcagttt atttaacatt tcccatgttg ttaactattt aggttgtttc taattttcat tattataaag ttgcagaaat ttgtgtg MMAISTIPV ISOQFTAMN EPQCFYNESI AFFYNRSGKH LATEWNTVSK LVMGLGITVC P IFIMLANLLV MVAIYVNRFF HFPIYILMAN LAAADFFAGL AYFYLMNTG PNTRRLLTVST WLLRQGLIDT SLTASVANLL AIAIERHITV FRMQLHTRMS NRRVVVVIVV IWTMAIVMGA IPSVGWNCIC DIENCSNMAP LYSDSYLVFW AIFNLVTFV MVVLYAHIFG YVRQRTMRMS RHSSGPRNR DTMSLLKTV VIVLGAFFIC WTPGLVLLLL DVCCPQCDVL AYEKFFLLLA EFNSAMNPPII YSYRDKMSA TFRQILCCQR SENPTGPTES SDRSASSLNH TILAGVHSND HSVV </p>	Homo sapiens
153	3038	G Protein- Coupled Receptor MRG	S78653	<p> ttttgtattt gttgcaccct aagtctgttc atttcttctt cctcagctga catttgagc A atagcagtcg atgatgcccac cacagacact gcctgagact cagccccgt gagaaacgca gatttcccta ttttccaggt caagtcctgc cagccataga aaggacttct ttggtgccc ctgctgtgaa atgcctgctc tggaaatctc agtgcctcct tgtacctgtc tgagcccagg gaaatgccat actgtggcac tgcctgcaccc ggtatggcta cccaaggatg cccaggactg gtttgaaaga gatgagacat ggccaggtgc gtggctcacg cttgtaatcc agcactttgg gaggtcaagg cagtggatca caaggtcaga gttgagacca gccaggccaa tatggtgaaa acccatctc tactaaaaat acaaaaaatt agccgggcaa tgggtggtggg tgcctgtagt tccagctagt caggaggccg aggcaggaga atcgcttgaa cctggaagggt ggaggttcca gtgagctgag atcgcgccac tgcactccag cctgggtgac agagtgagac tccaactcaa </p>	Homo sapiens

154	3038	G Protein-Coupled Receptor MRG	AAB21255.1	<p> aaaaaaaaa aaaaaagaga tgagacacta gtgtctcatg agtagaacct ggaccagaca caaatctcca ttcccaatgt ttagtgccctc attagtcccc aacaacaaga tattgggtct atgtgggtag gcctgggga tcctgtacaa caggagatgt gttaggggag ggagaacaga tcacaaattc atggagagct atttgacagc caacaatggg tgttctattc cagcttaga taatgttcag ctgttctctaa aaagcacacc ggacacact agatggacca ctgctcctga aaatgtagag gcaaggggtc tgaggccaga gacagctgtt gctgagtcac agatatctct ctcagttagc ctgtgatgtt gtggccact caggtccccc caccctatgg tctgggggaa aatttgctgg ttcagccaga gggctggatg gacagtgttt cagagtgcca cagaaaccaa accctgtatc tcagctctgt ctttgtctcc acagtgtga ccaggaggca accatacata tgcagatgag catggcagtg ggcgtctttc ttcaaaatga gacgaatgaa gccccaaag ctgtgctggg tccccctgt ggacagcagg cctgcccctt gaatatcatt gccccaaag ctgtgctggg tccccctgt gggtctttat tgaatggcac tgtcttctgg ctgctttgtc gtggggccac gaatccctac atgggtatata tctccacact ggtcgctgct gacgtgatct atctttgtc ctcggcagtg gggttctttac agtgactct gctaaacttat catggagtcg tgttttttat cctgatttc ctggccatat tgtctccctt cctctttgag gtgtgtctct gtctcctgtt ggccatcagc acagagcggg gtgtgtgtgt cctctcccc atctgtgaca gatgccacg cccaaaaaac acatctaata tgtctgac cctcatctgg ggcctgctt tttgcatcaa catagtaaaa tcaactttcc taacttactg gaaacatgta aaggcatgtg tcatatttct aaagctttct gggctcttcc atgctatcct ttcaactgtg atgtgtgtgt cgagtcgtac tctactcatt agattcctgt gctgctccca gcagcaaaa gcccacaggg tctatgcggg ggtgcagatc tcggccccc tgttctctact ctgggcccct cccctgagcg tggcaccct cataacagat ttcaaaatgt ttgtcaccac cctctattta attcctgtt tctcattat aaacagcagc gccaacccta tcatttattt ctttgtgggg agcctcagaa agaaaaggct gaaggaaatct ctcagagtga ttctccaaag ggcgttagca gataagccag aggtggggag gaacaaaaag gcagctggca tcgacccaat ggagcaacca cactctactc agcatgtga gaaccttctt cccagggagc accagcctg tgtggaaca taatttccca catctgagct ggggaattgt acacatagta accagcctg ttctgcatca taaggctgct gcatcaaatc aatgctttat tctaataaag ttcagctttc atggacttcc aaaaacaccc cttgctgttt gtggttgga gagacattaa ctctcttct aggcagtaag cccagtttga atgtgtcca gttccaaaga tgagggggaat gggaccagat gagactttcc tggtaacctgt ggaatccaaa taaagaccat acaaaggcat gaattc </p>	Homo sapiens
155	3057	Melanocortin 3 Receptor (MC3R)	NM_019888	<p> atgagcatcc aaaagaagta tctggaggga gattttgtct ttcctgtgag cagcagcagc ttcctcagga cctgtctgga gcccagctc ggatcagccc ttctgacagc aatgaatgct tcgtgctgcc tgcctctgt tcagccaaca ctgcctaagt gctcggagca cctccaagcc </p>	Homo sapiens

Homo
sapiens

P

156 3057 Melanocortin NP_063941.1 MSIQKKYLEG DFVFPVSSSS FLRTLLPQL GSALLTAMNA SCCLPSVQPT LPNGSEHLQA

3 Receptor
(MC3R)

cttttcttca gcaaccagag cagcagcgcc ttctgtgagc aggtcttcat caagcccgag
 attttcctgt ctctgggcat cgtcagtcgt ctgaaaaca tcttggttat cctggcgtg
 gtcaggaacg gcaacctgca ctccccgat tacttttctc tctgcagcct gctggtggcc
 gacatgctgg taagtgtgtc caatgcccgt gagaccatca tgcagccat cgtccacagc
 gactacctga ccttcgagga caagtcttctc gagacatgg acaacatctt cgactccatg
 atctgcatct ccttggtggc ctccatctgc aacctctgg ccatcgccgt cgacaggtag
 gtcaccatct tttacgcgt cgcctaccac agcatcatga cctgaggaa ggcctccacc
 ttgacgtgg ccactcgggt ctgctgcggc gtctgtggcg tgggtttcat cgtctactcg
 gagagcaaaa tggtcattgt gtccctcatc acctgttct tggccatgat gctcctcatg
 ggacccctct acgtgcacat gttcctcttt ggcggctgc acgtcaagcg catagcagca
 ctgcacacctg ccgacggggt ggcctccacag caacactcat gcatgaagg ggacgtcacc
 atcaccattc tcttgggcgt gttcatcttc tgcctggccc ccttcttctt ccacctggct
 ctcatcatca cctgccccac caacctctac tgcactctgt acactgcccc cttcaaaccc
 tacctgggtc tcatcatgtg caactccgtc atcgacccac tcatctacgc ttcccgagc
 ctggaattgc gcaacacctt tagggagatt ctctgtggct gcaacggcat gaacttggga
 tag

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sapiens

A

157 3058 Melanocortin NM_005912

4 Receptor
(MC4R)

atggtgaact ccacccacg tgggtatgac acttctctgc acctctggaa ccgcagcagt
 tacagactgc acagcaatgc cagttagtcc cttggaaaag gctactctga tggagggtgc
 tacgagcaac tttttgtctc tcttgaggtg tttgtgactc tgggtgtcat cagcttgttg
 gagaatatct tagtgattgt ggcaatagcc aagaacaaga atctgcattc acccatgtac
 tttttcatct gcagcttggc tgtggctgat atgctggtga gcgtttcaaa tggatcagaa
 accattatca tcacctatt aaacagtaca gatacggatg cacagagttt cacagtgaat
 attgataatg tcattgactc ggtgactgt agctccttgc ttgcatccat ttgcagcctg
 ctttcaattg cagtggacag gtactttact atcttctatg ctctccagta ccataacatt
 atgacagtta agcgggttgg gatcatcata agttgtatct gggcagcttg cacggtttca
 ggcattttgt tcatcattta ctcagatagt agtgctgtca tcatctgctt catcaccatg
 ttcttcacca tgcctgctct catggcttct cttctatgtcc acatgttctt gatggccagg
 cttcacatta agaggattgc tgcctcccc ggcaactgggtg ccatccgcca aggtgccaat
 atgaaggag cgtattacctt gacctcctg attggcgtct ttgtgtctg ctgggcccc
 ttcttctctc acttaattt ctacatctct tgcctcaga atccatattg tgbtgcctc
 atgtctcact ttaacttga tctcactatg atcatgtga attcaatcat cgtactctg
 atttatgcac tccggagtca agaactgagg aaaaccttca aagagatcat ctgttgcctat
 cccctgggag gcctttgtga cttgtctagc agatattaa

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158 3058 Melanocortin NP_005903.1 MVNSTHRGMH TSLHLMNRSS YRLHNSAES LGKGYSDGGC YEQLFVSPEV FVTLGVISLL

4 Receptor

159	(MC4R)	3059	Melanocortin 5 Receptor (MC5R)	NM_005913	IDNVIDSVIC SLLASICSLS LSAVDRYFT IFYALQYHNI MTVKRVGIII SCIIWAAC TVS GILFIYSDS SAVIICLITM FFTMLALMAS LYVHMFILMAR LHIKRIAVLP GTGAIRQGAN MKGAITLTIL IGVFVVCWAP FFLHLIFYIS CPONPYCVCF MSHENLYLIL IMCNSIIDPL IYALRSQELR KTFKEIICCY PLGGLCDLSS RY	Homo sapiens
					atgaattcct catttcacct gcatttcttg gatctcaacc tgaatgccac agaggggcaac A ctttcaggac ccaatgtcaa aaacaagtct tcaccatgtg aagacatggg cattgtctgtg gaggtgttct tcactctggg tgtcatcagc ctcttgaga acatcttggc cataggggccc atagtgaaga acaaaaacct gcactcccc atgtacttct tegtgtgcag cctggcagtg gcggacatgc tggtagagcat gtccagtgc tgggagacca tcaccatcta cctactcaac aacaagcacc tagtgatagc agacgccttt gtgcgccaca ttgacaaatgt gtttgactcc atgatctgca ttccgtggt ggcatecatg tgcagcttac tggccattgc agtggatagg tacgtcacca tcttctacgc cctgcgtac caccacatca tgacggcgag gcgtcaggg gccatcatcg ccggcatctg ggtttctgc acgggtctgc gattgtctt catcctgtac tcagaatcca cctacgtcat cctgtgctc atctccatgt tcttgcgtat gctgttcttc ctggtgtctc tgtacataca catgttctc ctggcgcgga ctacgtcaa gcggatcgcg gctctgccc gggccagctc tgcggcgag aggaccagca tgcaggggcg ggtcacccgc accatgctgc tggcggtgtt taccgtgctg tgggccccgt tcttcttca tctcacttta atgcttctt gccctcagaa cctctactgc tctcgttca tgtctcactt caatatgtac ctcatactca tcatgtgtaa ttcctgtatg gacctctca tatatgcctt ccgcagccaa gagatgcgga agacctttaa ggagattatt tgcgtcgtg gtttcaggat cgctgcagc tttcccgaa gggattaa	
160	(MC5R)	3059	Melanocortin 5 Receptor (MC5R)	NP_005904.1	MNSSFHLHFL DLNLNATEGN LSGPNVNKNS SPCEMDGIAV EVFLTGLVIS LENILVIGA P IVKNKLNHSP MYFFVCSLAV ADMLVSMSSA WETITIYLLN NKHLVIADAF VRHIDNVFDS MICISVVASM CSLLAIAVDR YVTIFYALRY HHIMTARRSG AIIAGIWAFC TGCGIVFELY SESTYVILCL ISMFFAMLFL LVSLYIHMFL LARTHVKRIA ALPGASSARQ RTSMQGAVTV TMLLGVFTVC WAPFFLHFL MLSCPQNLIC SRFMSHFMY LILIMCNSVM DPLIYAFRSQ EMRKTFKELI CCRGFRIACS FPRRD	Homo sapiens
					ggagaggggtg tgagggcaga tctgggggtg ccagatgga aggagggcag catgggggac A accgaaggcc ccttggcagc accatgaact aagcaggaca cctggagggg aagaactgtg gggacctgga ggcctccaa gactccttc tgcctcttg acaggactat ggctgtgcag ggatccaga gaagacttct ggcctccctc aactccacc ccacagccat cccccagctg gggctggctg ccaaccagac aggagccccg tgcctggagg tgcctatctc tgacgggctc ttcctcagcc tggggctggt gagcttggtg gagaacgcgc tgggtggtgc caccatcgcc aagaaccgga acctgcactc acccatgtac tgcctcatct gctgcctggc cttgtcggac ctgctggtga gcgggagcaa cgtgctggag acggccgtca tcttctgct ggaggccggt gcactggtg cccgggctgc ggtgctgcag cagctgtgaca atgtcattga cgtgatcacc tgcagctcca tgcgtgtccag cctctgctc ctgggcgcca tgcctgtgga cgcctacatc tccatcttct acgcactgcg ctaccacagc atcgtgacct tgcgcggggc gcggcaagcc gttgcgggcca tctgggtggc cagtgtcgtc ttcagcacgc tcttcatcgc ctactacgac cacgtggccg tctgtctgtg cctcgtggtc tcttctctgg ctatgctggt gctcatggcc gtgctgtacg tccacatgct ggccccggcc tgcaggaagc cccagggcat cgcggggctc	
161	(MC1R)	3061	Melanocortin 1 Receptor (MC1R)	NM_002386	ggagaggggtg tgagggcaga tctgggggtg ccagatgga aggagggcag catgggggac A accgaaggcc ccttggcagc accatgaact aagcaggaca cctggagggg aagaactgtg gggacctgga ggcctccaa gactccttc tgcctcttg acaggactat ggctgtgcag ggatccaga gaagacttct ggcctccctc aactccacc ccacagccat cccccagctg gggctggctg ccaaccagac aggagccccg tgcctggagg tgcctatctc tgacgggctc ttcctcagcc tggggctggt gagcttggtg gagaacgcgc tgggtggtgc caccatcgcc aagaaccgga acctgcactc acccatgtac tgcctcatct gctgcctggc cttgtcggac ctgctggtga gcgggagcaa cgtgctggag acggccgtca tcttctgct ggaggccggt gcactggtg cccgggctgc ggtgctgcag cagctgtgaca atgtcattga cgtgatcacc tgcagctcca tgcgtgtccag cctctgctc ctgggcgcca tgcctgtgga cgcctacatc tccatcttct acgcactgcg ctaccacagc atcgtgacct tgcgcggggc gcggcaagcc gttgcgggcca tctgggtggc cagtgtcgtc ttcagcacgc tcttcatcgc ctactacgac cacgtggccg tctgtctgtg cctcgtggtc tcttctctgg ctatgctggt gctcatggcc gtgctgtacg tccacatgct ggccccggcc tgcaggaagc cccagggcat cgcggggctc	Homo sapiens

164	3079	Melatonin Receptor type 1a	NP_005949.1	<p>cacaaccaca accaacacaca caaacctttc agctggcaga gttagcattg gttagctata ctcatggtca taaatgtttg ccgctctata ttacagttg tgcatgcaac cagataaaga actaaatcat agccgggga cagtcgctca cactgtaac ctgagcactt tgggaggctg aggtgggcag atcaactgag ttcaggagtt tgagaccacc ctggggcaac atgatgaaat cccatctcta aaaaaatata aaaaattatc tgggcatggt gcacacgcct gtaatcccag ctactcagga gactgagtta ggagaatccc ttgagcccca gaggcagagg ttgtggtgag ccgagatcgc gccagtagat tccaaacttag gctacagaaat gagactctgc ccaaaaaaaa aaaaaaaa</p>	Homo sapiens
165	3080	Melatonin Receptor type 1b	NM_005959	<p>AGNIFVWSLA VADLVVAIYP YPLVLMISFN NGWNLYLHC QVSGFLMGLS VIGSIFNITG IAINRYCYIC HSLKYDKLYS SKNSLCYVLL IWLLTLAAVL PNLRACTLQY DPRIYSCTEFA QSVSSAYTIA VVVFHFLVPM IIVIFCYLRI WILVLQVRQR VKPDRKPKLK PQDFRNFVTM FVVFVLFALC WAPLNFILGLA VASDPASMPV RIPEWLFVAS YMYAFNSCL NAIYGLLNQ NERKEYRRII VSLCTARVFF VDSNDVADR VKWKPSPMT NNNVVKVDSV</p>	Homo sapiens

166	3080	Melatonin Receptor type 1b	NP_005950.1	<p>ttgtaacta caagggcctc agtggggca ggtgcagagg gc</p> <p>MSENGSEFNC CEAGGWAVRP GWSGAGSARP SRTPRPPWVA PALSALVIVT TAVDVVGNLL P</p> <p>VILSVLRNRK LRNAGNLFLV SLALADLVVA FYPYPLILVA IFYDGNWALGE EHCKASAFVM</p> <p>GLSVIGSVFN ITAIAINRYC YICHSMAYHR IYRWHTPLH ICLIWLLTVV ALLPNFFVGS</p> <p>LEYDPRIYSC TFIQTASTQY TAAVVVIHFL LPIAVVSFCY LRIWLVLOA RRRKAKPESRL</p> <p>CLKPSDLRSE LTFWVVEVIF AICWAPINCI GLAVAINPQE MAPQIPEGLF VTSYLLLAYFN</p> <p>SCINAIVYGL LNQNFRREYK RILLALWNPR HCIQDASKGS HAEGLOQSPAP PIIGVQHQAD</p>	Homo sapiens
167	3081	Melatonin- Related Receptor	NM_004224	<p>AL</p> <p>tggttgctgt ctggacctgg ctgctgaccc tgaagctgct gggagatctt aacgatcccc A</p> <p>aggagcaaca tggggccccc cctagcggtt cccacccctt atggctgtat tggctgtaag</p> <p>ctaccccgag cagaataccc accggctcta atcatcttta tgttctgcgc gatggttattc</p> <p>accatcggtg tagactaat cggcaactcc atgttcctgt gtcagctctt ctgtggccga tatgctgggtg</p> <p>aagctccgga attctggcaa catcttcctg gatgctgcat gccatgtcca ttgggggctg ggtatctgagc</p> <p>gccatctacc catacccttt gccagatggt cgggttcctc acagggctga gtgtggctcg ctccatcttc</p> <p>cagttacagt gccatgctat caaccgttac tgctacatct gccacagcct ccagttacgaa</p> <p>aacatcggtg caatcgctat caccgttcac tacctgctac tacctgggtc tacctgggtc catgacctc</p> <p>cggatcttca gtgtgcgcaa taccgtgcat gtacattggc accatcgagt acgatccctg caccatcacc</p> <p>ctggctgtcc tggcccaacat gtacattggc accatcgagt acgatccctg caccatcacc</p> <p>tgcatcttca actatctgaa caaccctgtc ttcaactgta ccatcgcttg catccacttc</p> <p>gtctccctc tctcatcgt tctcatcgt gggtttctgc taactgta tctggaccac agtgcgtggcg</p> <p>gcccgtgacc ctgcagggca gaatcctgac aaccaacttg ctgaggttctg caattttcta</p> <p>accatggttg tgatcttct cctctttgca gtgtgctggt gccatatac cgtgctcact</p> <p>gtcttggttg ctgtcagtc gaaggagatg gcagggaaga tcccaactg gctttatctt</p> <p>gcagcctact tcatagccta cttaacagc tgcctcaagc ctgtgactta cgggctcctc</p> <p>aatgagaatt tccgaagaga atactggacc atcttccatg ctatggcgca ccctatcata</p> <p>ttcttccctg gccatcag tgatattcgt gagatgcagg aggcccgtag cctggcccg</p> <p>gcccgtgccc atgctcgca ccaagctcgt gtccattac ctgtgtagtc tgcagctggc</p> <p>gtggaggaaa ccccgatgaa tgcccggaat gtccattcc ccatctcctc tgcctatcgc</p> <p>caaccgacc gtgcctctg ccaacctaaag cccattcca gatcctcctc ctctggtcac</p> <p>aatctgctt ctaccacca caagtctgtc tttagccact ccaaggctgc ctctggtcac</p> <p>ctcaagcctg tctctggcca ctccaagcct gccctggtc accccaagtc tggcactgtc</p> <p>tacctaaagc ctgctctgt ccattcaag ggtgactctg tccattcaa gggtagactct</p> <p>gtccatttca agcctgactc tgttcatttc aagcctgctt ccagcaacc caagcccatc</p> <p>actggccacc atgtctctgc tggcagccac tccaagtctg ccttcagtgc tggcaccagc</p> <p>caccctaacc ccatcaagcc agttaccagc ctatctgagc ccaccactgc tgactatccc</p> <p>aagcctggcca ctaccagcca cctaagccc cgtgctgctg acaaccctga gctctctgccc</p> <p>tccattgccc ccgagatccc tgccattgccc caccctgtgt ctgacgacag tgacctccct</p> <p>gagtcggcct ctagccctgc cgtggggccc accaagcctg ctgcccagca gctggagctc</p> <p>gacacccatg ctgaccttcc tgacctact gtagtcaacta ccagttaccaa tgattacat</p> <p>gatgtcgtgg ttgttgatgt tgaagatgat cctgatgaaa tggctgtgtg aaaaatgctc</p> <p>tctgtaggtgg ccaggcagt</p>	Homo sapiens

168	3081	Melatonin- Related Receptor	NP_004215.1	MGPTLAVPTP YGCIGCKLPQ PEYPPALIIF MFCAMVITIV VDLIGNSMVI LAVTKNKKLR P NSGNIFVUSL SVADMLVAIY PYPIMLHAMS IGGWDLSQLQ CQMVGFI TGL SVVGSIFNIV AIAINRYCYI CHSLQYERIF SVRNTCIYLV ITWIMTVLAV LPNMYIGTIE YDPRTYTCIF NYLNNPVFTV TIVCIHFVLP LLIVGFCYVR IWKVLAARD PAGQNPNDQL AEVRNFLTME VIFLLFAVCW CPINVLTVLV AVSPKEMAGK IPNWLILAAY FIAYNSCLN AVIYGLLNN FRREYWTIFH AMRHPPIIFF GLISDIREMQ EARTLARARA HARDOAREQD RAHACPAVEE TPMNVNRNPL PGDAAAGHPD PASGHPKPHS RSSSAYRKSA STHKSVFESH SKAASGHLKP VSGHSKPASG HPKSATVYPK PASVHFKGDS VHFKGDSVHF KPDSVHFKPA SSNPKPITGH HVSAGSHSKS AFSAAATSHPK PIKPATSHAE PTTADYPKPA TTSHPKPAAA DNPELSASHC PEIPAIAHPV SDDSDLPESA SSPAAGPTKP AASQLES D TI ADLPDPTVVT TSTNDYHDVV VVDVEDDPDE MAV	Homo sapiens
169	3093	Metabotropic Glutamate Receptor 1	NM_000838	A gagggcggtcg tggaggaccc agaggaggag gcaaaggcct tggacgacca ttgttggcga gcgtcttggg ggtgcgcgc ccggagccctgc ggtgtggac ctcgtctca ccaccatggt cttttggag gtgtccctc tccccagaag gtcgtctcag cgtcgtgtgg ccagaaatgga agtcctccac cagcctccgg ccgagaaagt gcagtatggc atccagaggg tggagggccat cccggtcctc ctgcccacaa tcaccctggg ttcctgtggc ctggaacaga gcatttgagtt tgagaaggat gggatcaacc ggtgtctgcc taagaagccc attggggag tgatcgtgcc gaacctgtc cagctcttcg acatccccca gagtgacaaa actttgtaca aatacttctc aagggccatg cttgacatag tcaaacgtta ggaagggaat tatggggaga gcggaatgga cctctgtatc gccattctg acaaaatcta actcttgcgc aaactccgag agaggcttcc aggcatgaca gtgcgaggac tcctgagcgc ctcactcatt ggaagtgat gatgggcaga ggaagccaac gggggaatca cgataaagct ttattctctg aaactgaggc tggacactaa gcaacatcgg ttccagtgc cccttccagg aatctgcaca gccaatgaaa gcttagaaga tgtctcaat gccatctatg ccatggcaca ccctggccac gtgggacctc gcgatgccat cttctctatc aagtcctcat tcattggagt aggagacgct cctggaaagg atgatatcat tgactatgtg cactgtgaa cctggcatga ccagatgaac aagatggag tggtcggctc	Homo sapiens

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taaatatttt ctatttatt

Homo

P

FSVHHQPPAE

MDGDVIIGAL

GASSQSVAR

RSPGRKVLLA

3093

Metabotropic NP_000829.1

170

Glutamate Receptor 1	3094	Metabotropic NM_000839	Glutamate Receptor 2	171		sapiens
KVPERKCGEI	REQYGIQORVE	AMEHTLDKIN	ADPVLFPNIT	LGSEIRDSCW	HSSVALEQSI	
EFIRDSLISI	RDEKDGINRC	LPDQSLPPG	RTKKPIAGVI	GPSSSSVAIQ	VQNLLQLFDI	
PQIAYSATSI	DLSDKTLKY	FLRWPSDTL	QARAMLDIVK	RYNWTYVSIV	HTEGNYGESG	
MDAFKELAAQ	EGLCIAHSDK	IYSNAGEKSF	DRLLRKLRE	LPKARVVVAV	CEGMTVRGLL	
SAMRRLGVVG	EFSLIGSDGW	ADRDEVIEGY	EVEANGGITI	KIQSPSEVRSF	DDYFLKLRLD	
TNTRNPWFPE	FWQHRFQCL	PGHLEENPNE	KRICTGNESL	EENYVQDSKM	GFVINAIYAM	
AHGLQNMHA	LCPGHVGLCD	AMKPIDGSKL	LDFLIKSSFI	GVSGEEWVFD	EKGDAFGRYD	
IMNLQYTEAN	RYDYVHVGTW	HEGVLNIDDDY	KIQMNKSGVV	RSVCSEPCLK	GQIKVIRKGE	
VSCCWICTAC	KENEYVQDEF	TCACDLGWW	PNADLTGCEP	IPVRYLEWSN	IESIIAIAFS	
CLGILVTLFV	TLIFVLYRDT	PVKSSSREL	CYIILAGIFL	GYVCPFTLIA	KPTTSCYLQ	
RLLVGLSSAM	CYSALVTKTN	RIARILAGSK	KKICTRKPRF	MSAWAQVILIA	SILISVQLTL	
VVTLIIMEPP	MPILSYPSIK	EYVLICNTSN	LGWVAPLGN	GLLIMSCITYY	AFKTRNVPAN	
FNEAKYIAFT	MYTTCIIWLA	FVPIYFGSNY	KIITTCFAVS	LSVTVALGCM	FTPKMYIIIA	
KPERNVRSAP	TTSDVVRMHV	GDGKLPCRNS	TFLNIFERRKK	AGAGNANSNG	KSVSWSEPGG	
GQVPKGQHMW	HRLSVHVKTN	ETACNQTAIV	KPLTKSYQGS	GKSLTFSDDTS	TKTLYNVEEE	
EDAQPIRFSP	PGSPSMVVRH	RVPSAATTPP	LPHLTAET	PLFLAEPALP	KGLPPPLQQQ	
QQPPPPQKSL	MDQLQGVVSN	FSTAIPDFHA	VLAPGGPGPN	GLRSLYPPPPP	PPQHLQMLPL	
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gccccaacac	caccggctc	tgtgacgca	tgccggcag	taacggg	cgcctctaca	
aggactttgt	gctcaacgtc	aagtttgat	cccccttgc	cccagctgac	accacaatg	

Homo
sapiens

172	3094	Metabotropic NP_000830.1 Glutamate Receptor 2	aggtccgctt tgaccgcttt ggtgatggta ttggccgcta caacatctt acctatctgc gtcgaggcag tggcgcttat cgtaccaga agtggtgcta ctggcagaa gcttgactc tggacaccag cctcaccga tggcgctcac cgtcagccgg cccctggcc gctctcgtc gcagtgcgc ctgcctccag aatgaggtga agagtgtga gccgggcgaa gtctgctgt ggctctgcat tccgtgccag ccttatgagt accgattgga cgaattcact tgcgctgatt gtggcctggg ctactggcc aatgcagcc tgcctggctg ctgcgaact cccaggagt acatccgctg gggcgatgcc tggcgctggg gacctgtcac catcgctgc ctgggtgccc tggccacct gtttgtctg ggtgtctttg tggcgacaaa tggcacacca gtggtcaagg cctcaggtcg ggagctctg tacatctgc tgggtggtgt ctctcctgc tactgcatga ccttcacttt cattgccaa ccatccagg cagtgtgtac cttacggcgt cttggtttgg gcaactgcctt ctctgtctg tactcagccc tgcacacaa gaccaaccg attgcacga tcttcggtgg ggcggggag ggtgccagc ggcacgctt catcagctt gctcacagg tggccatctg cctggcactt atctcgggc agctgctcat cgtgctgcc tggctggtgg tggaggcacc gggcacaggc aaggagacag ccccgaaag cgggaggtg gtgacactgc gctgcaacca ccgcatgca agtatgttg gctcgtggc ctacaatgtg ctcctcatgc cgctctgcac gctttatgcc ttcaatact ccaagtgcc cgaatactt aacgaggcca agttcattgg cttcaccatg tacaccact gcatcatctg gctggcattg ttgccatct tctatgtcac ctccagtac taccgggtac agaccacac catgtgcgtg tcagtcagcc tcaggcgctc cgtggtgctt gctgctctt ttgccccaa gctgcacatc atcctcttc agccgcagaa gaacgtggtt agccaccgg caccacacag ccgctttggc agtgcgtg ccagggccag ctccagcctt ggccaaagggt ctggctccca gttgtcccc actgtttgca atggccgtga ggtggtggac tcgacaact catcgctttg a	Homo sapiens
173	3095	Metabotropic NM_000840 Glutamate Receptor 3	MGSLALLAL LPLMGAVAE GAKVLTLEG DLVLGLFPV HQKGPAEDC GPVNEHRGIQ P RLEAMLFALD RINRDPHLLP GVRLGALHLD SCSKDLTHALE QALDFVRASL SRGADGSRHI CPDGSYATHG DAPTAITGVI GGSYSYDVSIQ VANLLRLFQI PQISYASTSA KLSKSRDYD FARTVPPDFE QAKAMAEILR FENWTYVSTE ASEG DYGETG IEAFELEARA RNICVATSEK VGRAMSRAAF EGWRALLQK PSARVAVLFT RSEDARELLA ASQRLNASFT WVASDGMGAL ESVVAGSEGA AEGAITIELA SYPISEFASY FQSLDPWNNNS RNPWFREFWE QRFRCFRQR DCAHSLRAV PFEQESKIMF VVNAVYAMAH ALHNMHRALC PNTRLCDAM RPNVGRRLYK DFVLNVKEDA PFRPADTHNE VRFDREFGDI GRYNIFTYLR AGSGRYRYQK VGYWAEGLTL DTSLLIPWASP SAGPLAASRC SEPCLQNEVK SVQPGEVCCW LCIPCQPYEY RLDEFTCADC GLGYWPNASL TGCFLPQEY IRWGDWAVG PVTIACLGAL ATFLVLGVFV RHNATPVVKA SGRELCPYILL GGVFLCYCMT FIFIAPKPSA VTLRLRLGLG TAFSVCSYAL LTKNRIARI FGGAREGAQR PRFISPAQV AICLALISGQ LLIVAWLWV EAPGTGKETA PERREVTLR CNHRDASMLG SLAYNVLLIA LCTLYAFENR KCENEFNEAK FIGFTMYTTC IWLALLPIF YVTSSDYRVQ TTTMVCVSVSL SGSVLGLCLF APKLHILFQ PQKNVWSHRA PTSRFGSAAA RASSSLGQGS GSQFVPTVCN GREVDSTTS SL	Homo sapiens

gaaacaggat tcatgaagat gttgacaaga ctgcaagttc ttaccttagc ttgttttca
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agagtgcaga cgacaacct gtgcatctc gtcagcctga gtggcttgt ggtctggg

174	3095	Metabotropic NP_000831.1 Glutamate Receptor 3	<p>tgttgtgttg caccaaggt tcacatcatc ctgtttcaac ccagagaaga tgttgtcaca cacagactgc acctcaacag gttcagtgct agtgaactg ggaccacata ctctcagtc tctgcaagca cgtatgtgcc aacggtgtgc aatggcgagg aagtcctcga ctccaccacc tcattctgtg gatttgaat tgcatgtcag ttctgtgtgt tttagactgt tagacaaaag tgctcacgtg cagctccaga atattggaac agagcaaaag acaacccta gtacctttt ttagaacacg tacgataaat tatttttag gactgtatat agtgatgtgc tagaactttc taggctgagt ctagtcccc tattattaac aattccccc gaacatggaa ataaccattg tttacagagc tgagcatgg tgacagggtc tgacatggct agtctactaa aaaaacaaaa aaaaaacaaa aaaaaaaa acaaaagaaa aaaaaaaa tacggtggca atattatga acctttttc ctatgaagt tttgtaggt cttgtgtgta actaatgttag gatgagtttc tatgttgat attaaagtta cattatgtg aacagattga tttctcagc aaaaaataa aagcatctgt attaatgtaa agatactgag aataaaacct tcaagggtttt MLTRLQVLT ALFSKGFLS LGDHNELRRE IKIEGDLVLG GLFPIKEGT GTEECGRINE P DRGIQRLEAM LFAIDEINKD DYLLPGVKLG VHILDTCSR TYLEQSLF VRASLTKVDE AEYMC PDGSY AIQENIPLLI AGVIGGSYSS VSIQVANLLR LFOIQAISYA STSAKLSDKS RYDYFARTVP PDFYQAKAMA EILRFENWTY VSTVASEGDY GETGIEAFEQ EARLRNICIA TAEKVGRSNI RKSYSVIRE LLQPNARV VLFMRSDSR ELIAASRAN ASFTWVSDG WGAQESIIG SEHVAYGAT IELASQVRQ FDRYFQSLN YNNHRNPFWR DFWEQKFQCS LQNRNHRV CDKHLAIDSS NYEQESKIME VNAVAYAMAH ALHKMORTLC PNTTKLCDAM KILDGKKLYK DYLLKINFETA PENPNKDADS IVKFDTFDGD MGRYNNVFQ NVGGKYSYLK VGHWAETLSL DVNSIHWSRN SVPTSQSDP CAPNEMKNMQ PGDVCCWICI PCEPYEYLAD EFTCMDCGSG QWPTADLTGC YDLPEDYIRW EDAAWAGPVT IACLGFMCTC MVTVFIKHN NTPLVKASGR ELCYILLFGV GLSYCMTEFF IAKSPVICA LRLGLGSSF AICYSALLTK TNCIARIFDG VKNGAQRPKF ISPSSQVFIC LGLILVQIVM VSVWLILEAP GTRRYTLAEK RETIVLKCNV KDSSMLISLT YDVLVILCT YVAFKTRKCP ENFNEAKFIG FTMVTTCLIW LAFLPIFYVT SSDYRVQTTT MCISVSLSGF VVLGCLFAPK VHILFQPOK NVVTHRLHN RFSVSGTGTT YSQSSASTYV PTVNCREVL DSTSSL</p>	Homo sapiens
175	3096	Metabotropic NM_000841 Glutamate Receptor 4	<p>ccgagtgaca aggaggtggg agagggtagc agcatgggct acgcggttgg ctgccctcag A tccccctgct gctgaagctg cctgcccacg gccacccag gccgtggggc caggggcctg ccagggctag gagtgggctt gccgttcacg ggtctctagg gatttccag atgcctggga agagaggctt gggctgggtg tgggcccggc tgcccccttg cctgctctc agcctttacg gccccggat gccttctcc ctgggaaagc ccaaaaggcca cctcacatg aattccatcc gcatagatgg ggacatcaca ctgggaggcc tgttcccggt gcattggcgg ggctcagagg gcaagccctg tggagaactt aagaaggaaa agggcatcca ccggtggag gccatgctgt tcgcccctga tcgcatcaac aacgacccg aactgctgcc taacatcacg ctgggccc gcattctgga cacctgctc agggacaccc atgcccctga cagtcgctg acctttgtgc agcgctcat cgagaaggat ggacagagg tccgctgtgg cagtggcggc ccaccatca tcaccaagcc tgaacgtgtg gtgggtgtca tcggtgttc agggagctcg gtctccatca tggtggccaa catccttcgc ctctcaaga taccacagat cagctacgcc tccacagcgc cagacctgag tgacaacagc cgctacgact tcttctccc cgtggtgccc tcggacacgt accaggccca ggcctgggtg gacatcgtcc gtgccctcaa gtggaactat gtgtccacag</p>	Homo sapiens

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176 3096 Metabotropic NP_000832.1
Glutamate Receptor 4 Homo sapiens

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TFVQALIEKD GTEVRCGSGG PPIITKPERV VGVIGASGSS VSIMVANILR LFKIPQISYA
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177 3097 Metabotropic NM_000842
Glutamate Receptor 5 Homo sapiens

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3097	Metabotropic NP_000833.1	3098	Metabotropic NP_000833.1	3099	Metabotropic NP_000833.1
	Glutamate		Glutamate		Glutamate
	Receptor 5		Receptor 5		Receptor 5

179	3098	Metabotropic Glutamate Receptor 6	NM_000843	Homo sapiens	A
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180	3098	Metabotropic NP_000834.1 Glutamate Receptor 6	<p> tgggcctctc tggcaggaac tctgatgcac cgcgaggccc atgtactcct gtggctttct cacattcggt ctacttgag cgtatctcca cagcatgcac cactctgggt acagggggac atcctctgtt actgaagatg ttgtcatatt tagtcatctc acaagggtttc tctcctcca gaattttctg atgtacacaa ataactgact tcacacagag ggctttttcca cactcggtgt gtgcatacag ttctgcctg tgatcatttc tttatgttat tattttattt ttctgagata gggtcttgct caattctta ggctggagtg cagtggcagc atcatagctc actgaagttt cgacctgggc tcaagcaatc ctcccgcttc agctcctga gtagctgggt cgcacgacca taccagcta atgttttatt tttgtagag acgaggtctc actatgttgc ccaggctggt ctcgaacttc tgagctogag cgatcctcct gcctccacct cccaaagtgt tcggattaca aacgtgagcc atgcaccta gcctctttga tcatctctgt ggtgttcagt ggggggtgac agctccctaa agattttcct gtttttttg atgcatgggt ttgaattcct tgagggtccaa tttatttga cccctgaata aagttttgtg ggtttcttc tatgtgtga attatatagg cattctcca gtgtggttc tcttatgtcg agtgagagct gacctgcacc gaagtttctc ccatttgtg ccttgaatt atctgtatga attatatgtt ccagtgaata tggagttctg ggttggagcc ttattccatg tttacacaa taaattgca gtgtcctct ctgggatgag agctctaaag cagagtaaga ttacgttctg atgtaagctt taaccacct tttataaggt ctcacctgtg gtccactgtg ttgagacttc tacagaagag ctctgtata gtaaccattt tcttaggctg tctcactgtg gtgaatcttc tgacacattt attatagctt tgtccattt cttatccttt ttgctcttta gaaatttccc tttaatattat tacattcatt gcttactgta aagagtccag gtaactgact ttaattcaag ttacttctg ttcaataaat ttaacttttc cc </p>	Homo sapiens
181	3099	Metabotropic NM_000844 Glutamate Receptor 7	<p> LLVALLPLAW LAQGLARAA GSVRLAGGLT LGGLFPVHAR GAAGRACGPL P KKEQGVHRL EAMLYALDRVN ADPELLPGVR LGARLLDTC S RDTYALEQAL SFVQALIRGR GDDEVGVRC PGGVPLRPA PPERVAVVG ASASSVSIMV ANVLRFAIP QISYASTAPE LSDSTRYDF SRVPPDSYQ AQAMVDIVRA LGWNYVSTLA SEGNYGESGV EAFVQISREA GGVCIAQSIK IPREPKEGF SKVIRRMET PNARGIIFA NEDDIRRVLE AARQANLTGH FLWVGSDSWG AKTSPILSLE DVAVGAITIL PKRASIDGFD QYFMTSRLEN NRRNIWFAEF WEENFNCKLT SSGTQSDST RKCTGEERIG RDSTYEQEGK VQFVIDAVYA IAHALHSMHQ ALCPGHTGLC PAMEPTDGRM LLOYIRAVRE NGSAGTPVMF NENGDAPEGY DIFQYQATNG SASSGGYQAV GQWAEITLRL DEFTCEACPG DMRPTNHTG HEVPSSLC SL PCGPGERKKM VKGVPCCWHC EACDGYRFQV DEFTCEACPG DMRPTNHTG CRPTPVVRLS WSSPWAAPPL LLAVLGIVAT TTVVAIFVRY NNTPIVRASG RELSYVLLTG IFLIYAITFL MVAEPGAACV AARLFLGLG TTLSYSALLT KTNRIYRIFE QGKRSVTPPP FISPTSQVVI TFSLTSLQV GMIAWLGRP PHSVIDYEEQ RTVDPEQARG VLKCDMSDLS LIGCLGSL LMVCTVYAI KARGVPETFN EAKPIGFTMY TTCIIWLAFV PIFFGTAQSA EKIIYIQTTL TVSLSLASV SLGMLYVPKT YVILFHPEQN VQKRKRSLKA TSTVAAPPKG EDAEAHK gaattcccaa caccaggtta attttgtat ttttagtaga gattgggttt caccatgttg A gccaggatgg tctccatctc ttgacctcgg gactctcctg gcttgggtctc caaagtgtct gggattacag gcatgagtca ccataccag ccaactgcag tcattcttat ggggcaaca cttggctgaa cccaggtttt ctaaagatac aaacccatgg gcaacaccaa gcattctaat ggaataggca cctggctgac tccaggcatt ctaataatag agacacctgg gcgaactcag </p>	Homo sapiens

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3099 Metabotropic NP_000835.1
 Glutamate
 Receptor 7

Homo
 sapiens

183	3100	Metabotropic Glutamate Receptor 8	NM_000845	PAAKKKYVS Y NNLVI	tgctgtgttg caagaataaa ctttgggtct tggattgcaa taccacctgt ggagaaaatg A gtatgcgagg gaaagcgatc agcctcttgc ccttgtttct tcctcttgac cgccaagtct tactggatcc tcacaatgat gcaagaact cacagccagg agtatgccc ttccatacgg gtggatgggg acattatttt ggggggtctc ttccctgtcc acgcaaggg agagagaggg gtgccttgtg gggagctgaa gaagaaaaa gggattcaca gactggaggc catgctttat gcaattgacc agattaacaa ggacctgat ctcctttcca acatcactct ggggtgccgc atcctcgaca cgtgctctag ggacacctat gctttggagc agtctctaac attcgtgcag gcattaatag aaaaagatgc ttcggatgtg aagtgtgcta atggagatcc acccattttc accaagcccg acaagatttc tggcgtcata ggtgctgcag caagctccgt gtccatcatg gttgctaaca ttttaagact ttttaagata cctcaaatca gctatgcac cacagcccca gagctaaagt ataacaccag gtatgacttt ttctctcgag tggttccgcc tgaactctac caagcccaag ccatggtgga catcgtgaca gcaactggat ggaattatgt ttcgacactg gcttctgagg ggaactatgg tgagagcgtt gtggaggcct tcaccagat ctcgagggag attggttgtg ttgcatggc tcagtcacag aaaatccac gtgaaccagg acctggagaa tttgaaaaaa ttatcaaacg cctgctagaa acacctaattg ctcgagcagt gattatgttt gccaatgagg atgacatcag gaggatattg gaagcagcaa aaaaactaaa ccaagtgggg cattttctct gattggctc agatagtgtg ggatccaaaa tagcacctgt ctatcagcaa gaggagattg cagaaggggc tgtgacaatt ttgcccnaac gagcatcaat tgatggattt gatcgatact ttagaagccg aactcttgcc aataatcgaa gaaatgtgtg gtttgagaa ttctgggagg agaatttttg ctgcaagtta ggatcacatg ggaagaggaa cagtcataa aagaaatgca cagggctgga gcgaattgct cggtattcat cttatgaaca ggaaggaaaa gtccaatttg taattgatgc tgtatatctc atggcttacg ccctgcacaa tatgcacaaa gatctctgcc ctggatacat tggcctttgt ccacgaatga gtaccattga tgggaaagag ctacttggtt atattcgggc tgtaaatattt aatggcagtg ctggcactcc tgtcactttt aatgaaaaac gagatgctcc tggacgttat accatcttcc agtatcaaat aaccaacaaa agcacagagt acaagttcat cggccactgg accaatcagc ttcatctaaa agtggagagc atgcagtggg ctcatagaga acatactcac cggcgtctg tctgcagcct gccgtgtaag ccaggggaga ggaagaaaaa ggtgaaaggg gtcccttgct gctggcactg tgaacgctgt gaagggttaca actaccaggt ggatgagctg tctgtgaaac tttgccctct ggatcagaga cccaacatga accgcacagg ctgccagctt atccccatca tcaaatgga tggcattct ccctgggctg tgggtccctgt gtttgttgca atattgggaa tcatcgccac cacctttgtg atcgtgacct ttgtccgcta taatgacaca cctatcgtga gggcttcagg acgcgaactt agttacgtgc tcctaacggg gatttttctc tgttattcaa tcacgttttt aatgattgca gcaccagata caatcatatg ctcttccga cgggtcttcc taggacttgg catgtgtttc agctatgcag cccttctgac caaaacaaac cgtatccacc gaatattga gcaggggag aaatctgtca cagcgcccaa gttcattagt ccagcatctc agctggtgat caccttcagc ctcatctccg tccagctcct tggagtgttt gtctgtttg ttgtggatcc cccccatc atcattgact atggagagca gcggacacta gatccagaga aggcagggg agtgcctcaag tgtgacattt ctgatctctc actcatttgt tcaattggat acagtatcct cttgatgttc	Homo sapiens
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184	3100	Metabotropic NP_000836.1 Glutamate Receptor 8	acttgtagtg tttatgcca taaaacgaga ggtgtcccag agaatttcaa tgaagccaaa cctattggat ttaccatgta taccacctgc atcatttggg tagctttcat ccccatcttt tttggtacag ccagtcagc agaaaagatg tacatttcag caaacacat tactgtctcc atgagtttaa gtgcttcagt atctctgggc atgctctata tgcccaaggt ttatatata atthttcatc cagaacagaa tgttcaaaaa cgcaagagga gcttcaaggc tgtggtgaca gctgccacca tgcaaacgaa actgatccaa aaaggaaatg acagaccaaa tggcgaggtg aaaagtgaac tctgtgagag tcttgaacc aacattctct ctaccaagac aacatatatc agttacagca atcattcaat ctgaacacag gaaatggcac aatctgaaga gactgtgtat atgatcttaa ataatcaatg tagagaccgca aaaattcact cctggagatc tccgtagact acaatcaatc cggggagtg tagtcttctg aggaacaaaa aattagccat gagccaaaaag tatcaataaa cgttgagtg agaaacccgt tttatacaat aaacccaatg agtgcacagc taaaagtattg cttattcatg agcagttaaa caaatcaca aaaggaaaac taatgttagc tcgtgaaaaa aatgctgttg aaataaataa tgtctgatgt tattcttgta ttttctgtg attgtgagaa ctcccgttcc tgtccacat tgtttaactt gtataagaca atgagttctgt ttcttgtaat gctgaccag attgaagccc tgggtgtgtc taaaaataaa tgcaatgatt gatgcatgca attttttata caataaattt atttctaata ataaaggaat gttttgcaaa aaaaaaaaa aaaaactcga g	Homo sapiens
185	3212	Opioid mu- type Receptor	ggaattccgg ctataggcag aggagaatgt cagatgctca gctcgggtccc ctccgcttga cgctcctctc tgtctcagcc aggactgggt tctgtaagaa acagcaggag ctgtggcagc ggcgaaaagg aagcgttagg ggcgttgga cccgaaagt ctccgtgtctc ctggctacct cgcaagcgg tgcccgcccg gccgtcagta ccatggacag cagcgtgtcc cccacgaacg ccagcaattg cactgatgcc ttggcgtact caagtgtctc cccagcacc agccccggtt cctgggtcaa ctgtccac ttagatggca acctgtccga cccatgcggt cogaaccgca ccaacctggg cgggagagac agcctgtgcc ctccgaccgg cagtcctcc atgatcagg ccatcacgat catggccctc tactccatcg tgtgctgtgtt ggggctcttc ggaacttcc	Homo sapiens

186	3212	Opioid mu- type Receptor	NP_000905.1	MDSSAAPTNA PTGSPSMITA STLPFQSVNY RTPRNAKIIN FAFIMPVLII YVIIKALVTI EQONSTRIRQ	SNCTDALAYS ITIMALYSIV LMGTWPFGTI VCNWILSSAI TVCYGLMILR PETTFQTVSW NTRDHPSTAN	SCSPAPSPGS CVVGLFGNFI LCKIVISIDY GLPVMFMATT LKSVMRLSGS HFCIALGYTN TVDRTNHQLE	WVNLSHLDGN VMYVIVRYTK YNMFTSIFTL KYRQGSIDCT KEKDRNLRLRI SCLNPLVYAF NLEAETAPLP	LSDPCGPNRT MKTATNIYIF CTMSVDRYIA LTFSHPTWYW TRMVLVVAV LDENFKRCFR EFCIPTSSNI	NLGGRDSLCP NLALADALAT VCHPVKALDF ENLVKICVFI FIVCWTPPIHI EFCIPTSSNI	Homo sapiens
187	3223	Muscarinic acetylcholin e Receptor M1	NM_000738	atgaacactt ggctccctggc acagggaacc aactacttcc ctctatacca	cagccccacc aagtggcctt tgctggctact tgctgagcct cgtacctgct	tgctgtcagc cattgggact catctctttc ggcctgtgct catggggccac	cccaacatca accacgggcc aaggtcaaca gacctcatca tgggctctgg	ccgtccctggc tcctgtcgcct cggagctcaa tcggctacct gcacgtggc	accaggaag agccacagt gacagctaat ctccatgaac ttgtgacctc	Homo sapiens

188	3223	Muscarinic acetylcholin e Receptor M1	NP_000729.1	<p>tga</p> <p> MNTSAPPAVS PNITVLAPGK GPWQVAFIGI TTGLLSLATV TGNLLVLISF KVNTELKTVN P NYFLLSLACA DLIIGTFSMN LYTTYLLMGH WALGTLACDL WLALDYVASN ASVMNLLIS FDRYFSVTRP LSYRAKRTPR RAALMIGLAW LVSEFLWAPA ILFWQYLVGE RPKLAGQCYI QFLSQPIITF GTAMAAYFLP VTVMCTLYWR IYRETEENR ELAALQGSSE PKGGGSSSS SERSQPGAEG SPETPPGRCC RCCRAPRLQ AYSWKENRSE DEGSMEISLT SEGEPEPGEV VIKMPMVDPE AQPTKQPPR SSNTVVKRPT KKGRDRAGKG QKPRGKEQLA KRKTFSLVKE KKAARTLSAI LLAFLITWTP YNIMVLVSTF CKDCVPETLW ELGYWLCYVN STINPMCYAL CNKAFRDTFR LLLLCRWDRK RWRKIPKRP SVHRTPSRQC atgaataact caacaaact cctaaact agcctggctc ttacaagtcc ttataagaca A ttggaagtgg tgtttattgt cctggtggct ggatccctca gtttggtagc cattatcggg aacatcctag tcatggtttc cattaaagt caccgccacc tccagaccgt caacaattac tttttattca gcttggcctg tctgacctt atcataggtg ttttctccat gaacttgtac accctetaca ctgtgattgg ttactggcct ttgggacctg tgggtgtgta cctttggcta gccctggact atgtggtcag caatgcctca gttatgaatc tgcctcatc cagctttgac aggtacttct gtgtcacaaa accttgacc taccagatca agcggaccac aaaaatggca ggtatgatga ttgcagctgc ctgggtctc tctttcatcc tctgggctcc agccattctc tttctggaatg tcatgttagg ggtgagaact gtggaggtg gggagtgtc cattcagttt ttttccaatg ctgtgtcac ctttggtagc gctattgcag ccttctattt gccagtgtac atcatgactg tgctafattg gcacatatcc cgagccagca agagcaggat aaagaaggac aagaaggagc ctgttgccaa ccaagacccc gtttctccaa gtctggtaca aggaaggata gtgaagccaa acaataacaa catgccagc agtgacgatg gcctggagca caacaaatc cagaatggca agccccccag ggtcctgtg actgaaaact gtgttcagg agaggagaag </p>	Homo sapiens
189	3224	Muscarinic acetylcholin e Receptor M2	NM_000739	<p> ttacaagtcc ttataagaca A gtttggtagc cattatcggg tccagaccgt caacaattac ttttctccat gaacttgtac tgggtgtgta cctttggcta tgcctcatc cagctttgac agcggaccac aaaaatggca agccattctc cattcagttt gccagtgtac aaagaaggac aggaaggata caacaaatc agaggagaag </p>	Homo sapiens

190	3224	Muscarinic acetylcholin e Receptor M2	NP_000730.1	<p>gagagctcca atgactccac ctcagtcagt gctgttgctt ctaatatgag agatgatgaa ataaccagg atgaaaacac agtttccact tccctgggccc attccaaaga tgagaactct aagcaaacat gcataagaat tggcaccagg accccaaaaa gtagctcatg taccccaact aataccaccg tggagtagt ggggtcttca ggtcagaatg gagatgaaaa gcagaatatt gtagcccgca agattgtgaa gatgactaag cagcctgcaa aaaagaagcc tctccttcc cgggaaaaga aagtcaccag gacaatcttg gctattctgt tggctttcat catcactgg gcccataca atgtcatggt gctcattaac accttttgtg cacttggcat ccccaacact gtgtggacaa ttggttactg gctttgttac atcaacagca ctatcaaccc tgcctgctat gcactttgca atgccacctt caagaagacc tttaaacacc ttctcatgtg tcattataag aacataggcg ctacaaggt a</p>	Homo sapiens
191	3226	Muscarinic acetylcholin e Receptor M4	LG1143	<p>FLFSLACADL IIGVFSMNL TLYTVIGYMP LGPVVCDLWL ALDYVVSNAS VMNLLIISFD RYFCVTKPLT YPKRRTTKMA GNMIAAAWVL SFILWAPAIL FWQFIVGVRT VEDGECYIQF FSNAAVTEGT AIAAFYLPVI IMTVLYWHIS RASKSRIKKD KKEPVANQDP VPSLVQGR VKPNNNNMPS SDDGLEHNI QNGKAPRDPV TENCVOGEEK ESSNDSTSVS AVASNMRRDE ITQDENTVST SLGHSKDENS KQTCIRIGTK TPKSDSCTPT NTTVEVVGSS QONGDEKQNI VARKIVMTK QPAKKKPPS REKKVTRTIL AILLAFIITW APYNVMVLIN TFCAPCIPNT VWTIGYWL CY INSTINPACY ALCNATFKKT FKHLIMCHYK NIGATR</p>	Homo sapiens
192	3226	Muscarinic acetylcholin e Receptor M4	NM_000741	<p>CCTGGCAGTG CCGATGTTCC GATACTGGCA CAGCAGCAGG TGCCGGAGG TCTTTTAAA A GGTGGCGTTG CACAGAGCAT AGCAGGCAGG GTTGATGGTG CTGTTGACGT AGCAGAGCCA GTAGCCAATG GACCACACCG GGTCAAGGAT GCAGCTCTGG CAGAAGGTGT TCACCAGGAC CATGACGTTG TGAGGCGTCC CCGTCATCTG CCGCTTCTTG CGCACCTGGG TCGGAGCGAT TGGCACTTTG CGTCCCGGG CCGTCATCTG CCGCTTCTTG CGCACCTGGG TCGGAGCGAT GCTAGCGAAC TTGGCGGCCA CGTTGGCGCG AGCGCGCGGT GCGAGGGGACA ATCTCAGGGC TGGCACACAC TCATGGGCTG GCTGGGCTTG TCAAATTTTG GATCTTGGAC CATCTGGGAG GCTTGGTTGA AGGCCCCCGG CTCGGACTTG CGGGCATGAA TCCAGGCCCTT ACTCTANAGG ATCCCCCCT CTCC</p>	Homo sapiens

185/448

Homo
sapiens

P

NP_000732.1

Muscarinic
acetylcholin
e Receptor
M4

3226

193

ccgccaccgc gccccgtggc tgataaggac. acttccaatg agtccagctc aggcagtgcc
 acccagaaca ccaaggaacg ccagagccaca gagctgtcca ccagagagc caccactccc
 gccatgccg cccctccct gcagcgcg gcctccaacc cagctccag atggtccaag
 atccagattg tgacgaagca gagcgcaat gagctgtga cagccattga gattgtgcct
 gccagccgg ctggcatgag cctgcggcc aacgtggccc gcaagttcgc cagcatcgct
 cgcaaccag tgcgcaagaa gcggcagat gcggcccgag agcgcaagt gacacgaacg
 atctttgcca ttctgctagc. cttcatcctc acctggagc cctacaacgt catggtcctg
 gtgaacacct tctgccagag ctgcacccct gacacgggtg ggtccattgg ctactggctc
 tgctacgtca: acagcaccat caacctgccc tgctatgctc tgtgcaacgc cactttaaa
 agacacttc ggcacctgct gctgtgccag tatcggaaca tcggcactgc caggtag
 aagaccttc SGNQSVRLVT SSSHNRVETV EMVFATVTG SLSLTVVGN ILVLSIKVN
 RQLQTVNNYF LFLACADLI IGAFSMNLYT VYIKGYWPL GAVVCDLWLA LDYVVSNASV
 MNLIIISFDR YFCVTKPLTY PARTTKMAG IMIAAAWVLS FVLWAPAILF WQFVVGKRTV
 PDNHCFIQFL SNAVTEGTA IAAFYLPVVI MTLVYIHISL ASRSRVHKHR PEGPKKKAK
 TLAFKSPLM KQSVKKPRPG GRPGLRNGK LEEAPPALP PPPRPVADKD TSNESSGSA
 TONTKERPAT ELSTTEATP AMPAPPLQPR ALNPASRWSK IQIVTKQTGN ECVTAIEIVP
 ATPAGMRPAA NVARKEFASIA RNQVRKKRQM AARERKVTRT IFAILLAFIL TWTPYNNMVL
 WNTFCQSCIP DTVMSIGYWL CYVNSTINPA CYALCNATEK KTFRHLILCQ YRNIGTAR
 atggaaggcg attcttaaca caatgcaacc accgtcaatg gcacccagc aaatcaccag A
 cctttggaac gccacaggtt gtgggaagtc atcaccattg cagctgtgac tgctgtggta
 agcctgatca ccattgtggg. caatgtcttg. gtcatgatct ccttcaaatg caacagccag
 ctcaagacag ttaacaacta ttacctgctc agcttagcct gtgcagatct catcattgga
 atcttctcca tgaacctcta caccacctac atctcgtggc gacgtgggc tctcgggagt
 ctggtgtgtg acctttggtg tgcactggac tacgtggcca gcaacgtctc tgtcatgaac
 ctctgtgtga tcagttttga ccgttacttt tccatcacaa gaccttgac atatcgggc
 aagcgtactc cgaaaaggcg tggcatcatg attggcttgg cctggctgat ctccttcac
 ctctgggcc cagcaatcct ctgctggcag tacttgggtg ggaagcggac agttccactg
 gatgagtgc agatccagt tctctctgag cccaccatca ctttggcac tggcattgct
 gccttctaca tccctgttc tgtcatgacc atcctctact gtggaatcta ccgggaaaca
 gagaagcgaa ccaaggacct ggtgacctc cagggttctg actctgtgac caaagctgag
 aagagaaagc cagctcatag ggtctgttc agatcctgct tgcgtgttc tcgacccacc
 ctggcccgag gggaaaggaa ccaggcctcc tggctatcct cccgagggag cactccacc
 actgggaagc catcccaagc tctctcagag agcgccaatt gggccaaagc tgagcagctc
 accacctgta gcagctaccc tctctcagag gatgagaca agccccccac tgacctgtc
 ctccaagtgg tctacaagag tcagggttaag gaaagccag gggaaagaatt cagtgctgaa
 gagactgagg aaacttttgt gaaagctgaa actgaaaaa gtgactatga cacccaaac
 taccttctgt ctccagcagc tgcctataga cccaagagtc agaaatgtgt ggcctataag
 ttccgattgg tggtaaaagc tgacgggaac caggagacca acaatggctg tcacaagggtg
 aaatcatgc cctgccccct cccagtggcc aaggaacctt caacgaaagg cctcaatccc
 aaccagcc atcaaatgac caaacgaaag agagtgttcc tagtcaaaaga gaggaagca
 gccagacac tgagtggccat tctcctggcc ttcctcatca catggacccc gtataacatc

Homo
sapiens

A

NM_012125

Muscarinic
Acetylcholin
e Receptor
M5

3227

194

195	3227	Muscarinic Acetylcholin e Receptor M5	NP_036257.1	atggtctctgg tttctacct ctgtgacaag tgtgtcccaag tcacctgtg gcaacttgggc tattgggtgt gctactgtca tagcactgtc aacccctct gctatgccct ctgcaacaga accttcagga agacctttaa gatgctgctt ctctgccgat ggaataagaa aaaagtggaa gagaagtgt actggcagg gaacagcaag ctaccctga LKTNNYYLL SLACADLIIG IFSMNLTYTY ILMGRWALGS LACDLWLALD YVASNASVMN LIVISFDRYF SITRPLTYRA KRTPKRAGIM IGLAWLISFI LWAPAILCWQ YLVGKRTVPL DECQIQFLSE PTITFGTAIA AFYIPVSVMT ILYCRIYRET EKRTKDLADL QGSDSVTKAE KRKPAHRALE RSCLRCRPT LAQERNQAS WSSRRRSTST TGKPSQATGP SANWAKAEQL TTCSSYPSSE DEDKPADPV LQVYKSQK ESPGEESAE ETEETFVKAE TEKSDYDTPN YLLSPAAHR PKSQKCVAYK FRLVVKADGN QETNNGCHKV KIMPCFPVA KEPSTKGLNP NPSHQMTKRK RVLVKERKA AQTLSAILLA FIITWTPYNI MVLVSTFCDK CVPVTLWHLG YWLCYVNSTV NPICYALCNR TFRKTFKMLL LCRWKKKKVE EKLYWQNSK LP ctattgcagt atctttcagc agacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg tcgggactg cagaccgtg gcgatggcca ctctccagc agcagaaacc tggatagacg gggtggagg cgtgggtgca gacgcgtga acctgaccg ctcgctagt gccggggcgg ccacgggggc agttgagact gggtggctgc aactgctgga ccaagctggc aacctctct ctctcccttc cgcgtggga ctgctgtggg ctctccccc gccctcccag ccttggggcca acctaccaa ccagtctgtg cagccgtctt ggcgcctgc gctctggctc ctggcgtatg gtgtggtgtg ggcagtggca gttttggga atctcatcgt catctggatc atcttggccc acaagcgcac gaggactgt accaactact tcttctgaa cctggcttcc tccgacgcct ccatggccgc cttaacacgc ttggtcaatt tcatctacgc ccttcatagc gagtgggtact ttggcgccaa ctactgccg ttccagaact tcttctctat cacagctgtg ttccggcagca tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat cccctgaaac ccagactgtc tgctacagca accaagattg tcatgggaag tatttggatt cttagcatttc tactgcctt cctcagtgct cttattcca aaaccaaagt catgccaggc cgtactctct gcttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta tactggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta ctctctgggg agagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg ccaaaagaaa ggttgtcaa atgatgatta ttgtgtcat gacatttgc atctgtgctg tgccctatca tattacttc attctcactg caatctatca acaactaat agatggaaat acatccagca ggtctacctg gctagctttt ggtgggcaat gagctcaacc atgtacaatc ccatcatcta ctgctgtctg aataaaagt ttgagctgg cttcaagaga gatttccgt ggtgtcctt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggttcc atccaaaccg gcaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt ttgaccccaa cgatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag acccaagttt caatggctgc tctgcaggga attccaaatc tgcctccgc acttcaagt tcataagctc accctatacc tctgtggatg aatattctta attccattc ctgaggtaaa agattagtgt gagaccatca tgggtgccagt ctaggacccc attctctat ttatcagtc tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga	Homo sapiens
196	3378	Tachykinin Receptor 3	NM_001059	atggtctctgg tttctacct ctgtgacaag tgtgtcccaag tcacctgtg gcaacttgggc tattgggtgt gctactgtca tagcactgtc aacccctct gctatgccct ctgcaacaga accttcagga agacctttaa gatgctgctt ctctgccgat ggaataagaa aaaagtggaa gagaagtgt actggcagg gaacagcaag ctaccctga LKTNNYYLL SLACADLIIG IFSMNLTYTY ILMGRWALGS LACDLWLALD YVASNASVMN LIVISFDRYF SITRPLTYRA KRTPKRAGIM IGLAWLISFI LWAPAILCWQ YLVGKRTVPL DECQIQFLSE PTITFGTAIA AFYIPVSVMT ILYCRIYRET EKRTKDLADL QGSDSVTKAE KRKPAHRALE RSCLRCRPT LAQERNQAS WSSRRRSTST TGKPSQATGP SANWAKAEQL TTCSSYPSSE DEDKPADPV LQVYKSQK ESPGEESAE ETEETFVKAE TEKSDYDTPN YLLSPAAHR PKSQKCVAYK FRLVVKADGN QETNNGCHKV KIMPCFPVA KEPSTKGLNP NPSHQMTKRK RVLVKERKA AQTLSAILLA FIITWTPYNI MVLVSTFCDK CVPVTLWHLG YWLCYVNSTV NPICYALCNR TFRKTFKMLL LCRWKKKKVE EKLYWQNSK LP ctattgcagt atctttcagc agacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg tcgggactg cagaccgtg gcgatggcca ctctccagc agcagaaacc tggatagacg gggtggagg cgtgggtgca gacgcgtga acctgaccg ctcgctagt gccggggcgg ccacgggggc agttgagact gggtggctgc aactgctgga ccaagctggc aacctctct ctctcccttc cgcgtggga ctgctgtggg ctctccccc gccctcccag ccttggggcca acctaccaa ccagtctgtg cagccgtctt ggcgcctgc gctctggctc ctggcgtatg gtgtggtgtg ggcagtggca gttttggga atctcatcgt catctggatc atcttggccc acaagcgcac gaggactgt accaactact tcttctgaa cctggcttcc tccgacgcct ccatggccgc cttaacacgc ttggtcaatt tcatctacgc ccttcatagc gagtgggtact ttggcgccaa ctactgccg ttccagaact tcttctctat cacagctgtg ttccggcagca tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat cccctgaaac ccagactgtc tgctacagca accaagattg tcatgggaag tatttggatt cttagcatttc tactgcctt cctcagtgct cttattcca aaaccaaagt catgccaggc cgtactctct gcttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta tactggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta ctctctgggg agagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg ccaaaagaaa ggttgtcaa atgatgatta ttgtgtcat gacatttgc atctgtgctg tgccctatca tattacttc attctcactg caatctatca acaactaat agatggaaat acatccagca ggtctacctg gctagctttt ggtgggcaat gagctcaacc atgtacaatc ccatcatcta ctgctgtctg aataaaagt ttgagctgg cttcaagaga gatttccgt ggtgtcctt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggttcc atccaaaccg gcaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt ttgaccccaa cgatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag acccaagttt caatggctgc tctgcaggga attccaaatc tgcctccgc acttcaagt tcataagctc accctatacc tctgtggatg aatattctta attccattc ctgaggtaaa agattagtgt gagaccatca tgggtgccagt ctaggacccc attctctat ttatcagtc tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga	Homo sapiens

197	3378	Tachykinin Receptor 3	NP_001050.1	aaggtagtggt ataaatgtga caaagacact ataacaatgt tagctccac ccaaaataaa atgggcttta aattt MATLPAAETW IDGGGVGAD AVNLASLAA GAATGAVETG WLQLLDQAGN LSSSPSALGL P PVSPAPSQP WANLTNQFVQ PSWRIALWSL AYGVVAVAV LGNLIVIIW LAHKMRMTVT NYFLVNLAFS DASMAAFNTL VNFYIALHSE WYFGANYCRF QNEFFITAVF ASIYSMTALA VDRYMAIIDP LKPRLSATAT KIVIGSIWIL AFLLAFOCL YSKTKVMPGR TLCFVQWPEG PKQHFTYHII VIIIVYCFPL LIMGITYTIV GITLWGEIP GDTCDKYHEQ LKAKRKVVKM MIIVMTFAI CWLPYHIYFI LTAIYQQLNR WKYIQVYLA SFWLAMSSTM YNPPIYCCIN KRFRAGFKRA FRWCPEFIKVS SYDELELKT RFHPNRQSSM YTVTRMESMT VVFDPNADAT TRSSRKKRAT PRDPSFNGCS RRNSKSASAT SSFISPPYTS VDEYS	Homo sapiens
198	3380	Neuromedin B Receptor	NM_002511	gtgctgtgag gcttgcccg gacagataa cttgcagggg cgagagggag ggacatcgat A taaacctaaa tcgtggcggt tcagtcctca gggcaccgag cgctgaaaaa ctccagcgga ctctgctgga aaggagatca tgccctctaa gtctcttcc aacctctcgg tgaccaccgg cgcgaatgag agcgggtccg ttcccgaggg gtgggaaaag gatttcctgc cgccctcgga cgggaccacc acggagtggg tgatccgctg tgtgataccc tcctctacc tgctcatcat caccgtgggc ttgctgggca acatcatgct ggtgaagatc ttcatcacca acagcgccat gaggagcgtc ccaacatct tcactcttaa cctggcggcc ggggacttgc tgctgctgct cacctgcgtc ccggtggag cctcgcgcta cttcttcgac gagtggatgt ttggcaagggt gggctgcaaa ctgatecccg tcattccagct cacttccgtg ggggtttccg tgttcaactct cactgccctc agcgcgcaca ggtacagagc catcgttaac cccatggaca tgcagacgtc aggggcattg ctgcggacct gtgtgaaggc catgggtatc tgggtggtct ccgtgttgc ggcagttccc gaagcgggtg ttccagaagt ggctcgcac agtagcttgg ataatagcag cttcacagca tgtatcccat accctcaaac agatgaatta catccaaa ttcattcagt gctcatttct ttggtctatt tccatcacc acttgctatt attagcattt attattatca tattgcaaa accttaatta aaagcgaca caatcttctt ggagaataca atgaacatac caaaaaacag atggaacac ggaacgcct ggctaaaatt gtgcttgcct ttgtgggctg tttcatcttc tgttggttc caaacacat cctttacatg tateggtctt tcaactataa tgagattgat ccatctctag gccacatgat tgtcacctta gttcccggg ttctcagttt tggcaattct tgtgtcaac cattgctct ttacctactc agtgaagct tcaggaggca tttcaacagc caactctgct gtgggaggaa gtccatatcaa gagagaggaa ccagctacct actcagctct tcagcgggtg gtatgacatc tctgaaaagc aatgctaaga acatggtgac caattctgtt ttactaaatg ggacacagat gaagcaggaa atggcaatgt gattttggcc attcaactca ctacctggag agaacttagt aa MPSKSLSNLS VTTGANESGS VPEGWERDPL PASDGTTEL VIRCVIPSLY LLIITVLLG P NIMLVKIFIT NSMTANESVPI FISNLAAGDL LLLTTCVPVD ASRYFFDEWM FGKVGCKLIP VTQLTSVGS VFTLTALSAD RYRAIVNPMQ MQLTSGALLRT CVKAMGIWV SVLLAVPEAV FSEVARISL DNSSFTACIP YPQDELHPK IHSVLFLVY FLIPLAISI YYTHIAKTLI KSAHNLPGY NEHTKKQMET RKRLAKIVLV FVGCFFICWF PNHILMYRS FNYNEIDPSL GHMIVTLVAR VLSFGNSCVN PFALYLLSES FRRHNSQLC CGRKSQERG TSYLLSSSAV RMTSLKSNK NMVTNSVLLN GHSMKQEMAM	Homo sapiens
199	3380	Neuromedin B Receptor	NP_002502.1		Homo sapiens

200	3404	Neuropeptide Y Receptor Type 2	NM_000910	Homo sapiens
tatcctatcc	ctatcctagc	ttttaacctg	agccagagct	cactacacag gttcctggct A
atcgagtctg	aatctgcact	actcaactta	taaaactgtct	gcagacacct gttagggaagaa
ttgctgata	tgggcgag	gactgaact	cgctttacct	tttggtttgg agcacaggga
ccgcccagct	agaggagcac	gagcgactg	cgccccagcc	ctggcgagag gtgcgaggga
tttgttctcg	gtgcaatcct	gctggcgctt	ttccggggtt	ctcgcgagat ccagctcccc
atctctgctc	ctacacacac	aaaagaaaac	aactctcgat	tggaaattgt ggaattttct
cagcccctac	gagcgcggg	gattctccag	ccccggccct	cctcccgcca gcctgaggtc
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gaggtctgtc	ttcgccgggc	cagctctcgc	ggaactgggg	ggtagagagc aaaggagag
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tggcacagta	ggtgacagca	gcagctgcag	gtggtggctg	gggaccgcgc agggggcgcc
cctctgggta	gggtctggct	gagcgggctt	gcaagcccg	gagcgggctg agagaccctg
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cccaggcgcg	cttgccctga	gaggtcgcca	gcagaccccg	cagcgcccaac gcgccagccg
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cggaaccgga	cttgcccttg	ggcaccttcc	agggccctct	ccaggctcgc tggctaata
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ccacaaaaca	ctcctagagg	tgaactggtc	cctgacccctg	agccagagct tatagatagt
accaagctga	ttgaggtaca	agttgttctc	atatggcct	actgctccat catcttgcct
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gtaaccaact	ttttcattgc	caatctggct	gtggcagatc	ttttggtgaa cactctgtgt
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atcagcttcc	tgattattgg	cttggccttg	ggcatcagtg	ccctgctggc aagtccccctg
gccatcttcc	gggagtattc	gctgattgag	atcatccccg	actttgagat tgtggcctgt
actgaaaaagt	ggcctggcga	ggagaagagc	atctatggca	ctgtctatag tctttcttcc
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agtaaaattga	agaaccatgt	cagtccttga	gctgcaaatg	accactacca tcagcgaagg
caaaaaacca	ccaaaatgtg	ggtgtgtgtg	gtgggtgtgt	ttgcggtcag ctggctgcct
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aaactcatct	tcacagtgtt	ccacatcatc	gccatgtgct	ccacttttgc caatccccctt
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cagcgggttg	atgccattca	ctctgaggtg	tccgtgacat	tcaaggctaa aaagaacctg
gaggtcagaa	agaacagtgg	ccccaatgac	tctttcacag	aggctacaa tgtctaaagga
agctgtggtg	tgaatatgta	tggatgaatt	ctgaccagag	ctatgaatct ggttgatggc

201	3404	Neuropeptide Y Receptor Type 2	NP_000901.1	<p> ggtcacaaag tgaaaactga tttcccatTT taaagaagaa gtgatctaa atggaagcat ctgctgttta attcctggaa aactggctgg gcagagcctg tgtgaaaata ctggaattca aagataaggc acaaaaatgg tttacttaac agttggttgg gtagtaggtt gcttatgag taaaagcaga gagaagtact tttgattatt ttcctggagt gaagaaaact tgaacaagaa attggtatta tcaaaacatt gctgagagac gctgggaaaa taagttagct ttcaaatcac gttaggacct ggattgagga ggtgtgcagt tgcgtgctcc ctgcttggtt tatgaaaaca ccactgaaca gaaattttctc cagggagcca caggctctcc ttcatcgcct tttgattttt ttgttcattc tctagacaaa atccatcagg gaatgctgca ggaacgatt gccaaactata cgaatggctt cgaggagata aactgaaatt tgctatataa ttaatatattt ggcagatgat aggggaactc ctaaacactc agtgggcca aatttcttaa accaaattgc acgtttgggtg aaagtttctt caactctgaa tcaaaagctg aaattctcag aattacagga aatgcaaaacc atcattttaat ttctaatttc aagttacatc cgctttatgg agatactatt tagataacaa gaatacaact tgatactttt attgttatac ctttttgaac atgtatgatt tctgtttgta tttacctttt taaacagata aatatattttt ttcatattta gtagtagcga atctaattctt aatctaactt tttaggagta tatttcagag aaattccaag cacaccagta tgaccatcct tatttcagaa atgacaatgc atagaggaaa agtaatatgt gcaaaagcctc cgaagaggat ggttaagtaa agacttaggt taccagtatc aggccttctg ttttgtatgt aggtagctct actgcctcct cttaaaacca acaaaaggaa gagagactgg ctgcaaaactt ttagaaggaa tggtctcgaa taggttctct gggaggaatc cagaggaat agacgtgct gctctgctga ttgtctccac tatctgttt ttgtctctacc cactaatcca gcctgggagg ctctgggcat tagcggaaagg cttcaccaca aggagacagg agcgagtatt ccataggcat gcgctcctag tggcacgagt ggcttgggtc aggatcaaa agtgaaggat tgggaagtca gctatctgga gagagagaga gattgtgttt tattcgtgct ccatagcttt cctatcctat cctatcctca gcttttaacc tgagccagag ctcactacac aggttctctgg ctatcgagtc tgaatctgca ctactcaact tataaaactgt ctgcagacac ctgttaggga aattgctgat catgggcggc aggatctgaa ctgcctttac cttcttggtt ggagcacagg gaccgcccag cttagaggagc accagcgcac tgcgccccag ccctgggcga gggtgcggag gattgttct cgggtgcaatc ctgctggcgc ttttccgggg ttctgcccgg atccagctcc ccatctctgc tctacacac acaaaagaaa acaactctcg atbggaagt gtggaatttt ctcagcccc acgaggcgcg gggattctcc agccccggcc ctctcccg cagcctgagg tctccttcgc tgcctgcct tgctagggac cgcagtcctc cagccgcagc tgggtctgtc cgccccgct ttgcccctgc cttttcccg ggcgatttg gtgaagtctg cctcaagtc aggaggtctg tcttcgcccg gccagctctc </p>	<p> VVLILAYCSI P IDSTKLIEVQ TLCLPFTLY TLMGEWMKGP SKRISFLIG LAWGISALLA LSSLLILYVL PLGIISFSYT WLPFLHAFOLA VDIDSQVLDL RCEQRLDAIH SEVSVTFKAK V </p>	Homo sapiens
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202	3405	Neuropeptide Y Receptor Type 4	NM_005972	atgaacacct agcaaacccc atggctttca tgccctgatgt gccaacctgg tacaccatca cagtgcatgt cagctcatca gtgctcatct gagaatgtct tgtaccgagt ttccagtgact ctgcagagcg aagcagggtca ctgcagtgtgt aacctcatct atctatggct cagcagagcg gtctccaaag CLMCVTVRQK QCMSVTVSIL ENVFHKNSK LQRQGRVFBK NLIFLVCHLL VSKGSLRLSG	ctcacctcct tgggcacccc tcgtcacttc gtgtgactgt ccttctctga tggactactg cggtgacggt tcaacccaac gggtcattgc tccacaagaa cctggccact gcctccact aggggcgct atgtgtgtct tcaacagcct tcttagtgtg ttctcaaac ccccctgga ggctccctgag LPSKSPQGENR EKANVTNLLI SLVLVALERH ALEFLADKVV GTYSRLRAGHM AMASTCVNPF RSNPI	ggccttgctg atacaacttc ctacagcatt gaggcagaag cttctctcatg gatctttgga ctccatcctc aggctggaag ctgtgtcctc ccactccaag ggctcaccac gggttctcatc gtttcacaa ggtgtgtgatg ggaagactgg ccacttgctt caacttcaag ggagtgggag gctaagtggc SKPLGTPYNF ANLAFSDFLM QLINPTGWK CTESWPLAHH KQNVVVLVVM IYGFLLNTNFK VVAFAVLWLP LHVFNSLEDW KEIKALVLTC QQSAPLEESE HLPPLSTVHTE	ctccacaagg tctgaacatt gagactgtcg gagaaagcca tgccctctct gagacctctc tcgtgtgccc ccagcatctc tccctggccc gctctggagt cgacccatct ctggtctgtt ggcacctaca gtgtgtgccc caccatgagg gcatcccat gcatggcct atggatgccc gtgtgtgccc caccatgagg ggaagactgg ccacttgctt caacttcaag ggagtgggag catctgcccc aggtccaatc SEHCQDSVDV CLLCQPLTAV PSISQAYLGI RTIYTTFLLL VVAFAVLWLP LHVFNSLEDW HHEAIPICHG QQSAPLEESE HLPPLSTVHTE	tgaaaacaga gctggacgtg tgggggtcct acgtgacca gaccgcccgc ggccttctac gcaagatgtc tcgtggccct ggagaggcat cacaggccta tccctggccc tccctggcaga taaggtggtc cctgctcctc taaggtggtc cctgctcctc ctaccggcgc tgggcacatg ctggctgctt ctggccacggg ccactcccat ccactggcct aggccctggg gctgacttgc tgtccacagt acatacggaa ccatttaa	ETVVGVGLNL P ETLCKMSAFI SLPFLANSIL LVCYARIYRR HHEAIPICHG QQSAPLEESE HLPPLSTVHTE	Homo sapiens
203	3405	Neuropeptide Y Receptor Type 4	NP_005963.1	MNTSHLLALL CLMCVTVRQK QCMSVTVSIL ENVFHKNSK LQRQGRVFBK NLIFLVCHLL VSKGSLRLSG	LPKSPQGENR EKANVTNLLI SLVLVALERH ALEFLADKVV GTYSRLRAGHM AMASTCVNPF RSNPI	SEHCQDSVDV CLLCQPLTAV PSISQAYLGI RTIYTTFLLL VVAFAVLWLP LHVFNSLEDW KEIKALVLTC QQSAPLEESE HLPPLSTVHTE	ETVVGVGLNL P ETLCKMSAFI SLPFLANSIL LVCYARIYRR HHEAIPICHG QQSAPLEESE HLPPLSTVHTE	Homo sapiens		
204	3406	Neuropeptide Y Receptor Type 5	NM_006174	gaaaggctat agactataat taatactgct agatgactta ggggaatcta cttctccta cacactgacg gccttttctt tgtcaggtat cttcttgata tcacagttct atgtgttgag agttcagtat tataagctgt aactcttcat	cggtacaac atggatttag gccactcgga cagtattttc cttattttta ggcaatctgg tctgtcttgc caatgtgtgt catatgataa gctactgtct gtggaacttc tcattggccc attctgccc ggattgtcca ccatccaaa	tgacctgcca agctcgacga attctgattt tgattgggct tggctctcat ccttttctga tggatcagtg cagtttttgt aacatcccat ggacactagg aagaaacatt tcatttcagca tcatttcagca tactgttaagt tagtttgtct acaaagaaaa agagtgggc	caaagttaga gtattataac cccagctcgg ctatacattt gaaaaagcgt tatcttggtt gatgtttggc ttcaacttta atcttaataat ttttgccatc tggttcagca tggttcagca cagaattgcc tactgttaagt cagacttgaa tcatcttgga	gattcaagaa ccacagagaa aaagcagtg tggctttat ctacggtaaa gctcaccttt gccatattat caattgccc accatggcta ttccctccc ttgctgagca tttactatct catttatgtt tctgcagaag tgatcaact gcatataatg	Homo sapiens	

205 3406 Neuropéptide NP_006165.1 Y Receptor Type 5 Homo sapiens

gagttattca ttcatcaaaa aacacagaag aagatatagc aagaagacag catgtgtgtt
acctgctcca gaaagacctt ctcaagagaa ccaactcaga atacttccag aaactttgg
ctctgtaaga agtcagctct ctcatccag taagtccata ccagggtcc ctctgtctt
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tgcgtttagt tggatgccac tacacctttt ccattgtgta actgatttta atgacaattc
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ctgttgtctt aatccaatto tatatgggtt tcttaataat gggattaaag ctgatttagt
gtcccttata cactgtcttc atatgaata attctcaatg ttt
MDLEDEYN KTLATENNTA ATRNSDFVW DDYKSSVDDL QYFLIGLYTF VSLLGFMGNL P
LILMALMKR NQKTVNFI GNIAFSDILV VLFCSPTLT SVLLDQWMFG KVMCHIMPFL
QCVSVLSTL ILISIAIVRY HMIKHPIINN LTANHGFLI ATWTLGFAL CSPLPVFHS
VELQETGSA LLSSRYLCVE SWPSDSYRIA FTISLLVQY ILPLVCLTVS HTSVCRSISC
GLSNKENRLE ENEMINLTILH PSKSGPQVK LSGSHKWSYS FIKKRRRYS KKTACVLPAP
ERPSQENHSR ILPENFGSVR SOLSSSSKEI PGVPTCFEIK PEENSDVHEL RVKRSVTRIK
KRSRSVFYRL TILLVFAVS WMPLHLFHV TDFENDNLIN RHFKLVYCIC HLLGWMSCCL
NPILYGLNN GIKADLVSLI HCLHM

206 3408 Neurotensin NM_002531 Receptor Type 1 Homo sapiens

tcaagctgc ccgcgcgcgc ccgagccggg ctgggcgctg tctcggggg cctggggaac A
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gtctctggg cgggtctgt ggtgtgact gaagtcggct tcccgtga tgcctgatg
ctcctatctg tgcacttacc gtaggtaggg acagtgctc atgcaccaca gacacacca

Homo
sapiens

P

207 3408 Neurotensin
Receptor
Type 1 NP_002522.1

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 aacaaacccg gtgtatctct caataaagt ggcgaaggg cctcgatgtg g
 MRLNSSAPPT PGTAAADPFQ RAQAGLEEL LAPGFNASG NASERVLAAP SSELDTNDI
 YSKVLTVAVY LALFVVGTVG NTVTAFTLAR KKSLSQSLST VHYHLGSLAL SDLLTLLAM
 PVELYNFIWV HHPWAFGDAG CRGYFLRDA CTYATALNVA SLSVERYLAI CHPFKAKTLM
 SRSRTKKFIS AIWLASALLT VPMLETMGEQ NRSADGQHAG GLVCTPTIHT ATVKVVIQVN
 TFMSEIFPMV VISVNTIIA NKLTVMVROA ABQGVCTVG GEHSTFSMAI EPGRVQALRH
 GVRVLRAVVI AFVVCWLPYH VRRLMFCYIS DEQWTFPLYD FYHYFYMTN ALFYVSSTIN
 PLYNLVSAN FRHIFLATIA CLCPVWRRR KRPAFSRKAD SVSSNHTLSS NATRETLV
 cctgctctgc acctgtcgtc gactgccagc cggctgaggg cgggggtctc caggtgggtc A
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Homo
sapiens

A

208 3452 Opiate
Receptor-
Like 1
(OPRL1) NM_000913

209	3452	Opiate Receptor-Like 1 (OPRL1)	NP_000904.1	MEPLFPAPFW VCVGGLLGNC ALCKTVIAID VGVFVAIMGS RLRGVRLLSG LRFTALGVV KTSETVPRPA	EVYIGSHLQG LVMYVILRHT YNNMFTSTFT AQVEDEIEIC SREKDRNLRR NSCLNPILYA FLDENFKACE	NLSLLSPNHS KMKTATNIYI LTAMSVDRYV LVEIPTPDY ITRLVLVVA RDVQVSDRVR	SHGAFPLPLGL LLTLPFQGT VRTSSKAQAV LFSFIVPVLV VFVLAQGLGV QPSSETAVAI STAKDVALAC	Homo sapiens	
210	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NM_000273	atgaaccagg atggcctccc gtgctgagct ttggcgctgg gcgacgtccc ggctgcctgg agcgtctcgg atgtggatcc gcttatctgg gcgtggggcc gtgtccagg ccctctgtgc gcctctttac gtgatcaaga atcatcaatg ttgaaacctg gcccaggat cagtcctcca caccatccc gggcagactt gaaattcaca	caggccggcg cgcgctagg tccagccggc gccttctgca cgccggcctc gtatggtgat atatgaacca agctgttgta tgatccggag tggccacctt gtgagcggg tggttctcgt ttaaaggga tccgattttt aaagcctttt tcagaactgc ttctctgtc gaaaggagat cactgatgcc ctgacgaagc ctgcaagtga	acacccgagc tgccccacgc ggccttccac gctgctgccc ggctccgcatc ccggtcccac cacggaaatt cagtgccctgc atcggcagg tgatccggag gctctgtgtg cctggaccac acaaggcatt caaaatcatg attctatctt agccaagacc tttgcccttc cctggccttc ccatgggaa tcaatgaaa cctgctccc cctgctgaag aaaaatgagg	cgcgctccgcg gggacgcagc tgggcagcgg cgcgggccc cgctgcctg gattcccaa ctttctgcgt tggttggtg tctgtgga tcctgctgta ccatgctcta gccatcccc atcctgttcc aaaagacagt tacacggaga acgagaggag ctgggtttta gatagtcgaa cagatatcaa gagatgcaaa acatgggtta tactgggaa tactgacca cctcggtgc ggaaggtgtc gttctgatgc gtgacccctgc	Aacacagccc cagcgagctc cgggctccgc cgagcttctc ttttgttgac gggagtgcg tgagtgga tcacatcatg ctacccttcc catgtacctg gactgcagt gatggagcc gttgctgaa tggaggttct cctgaatcca cctgggtttt cctcggtgc tgagggggt tcaagtgggt cagcacaatt tctcccaacc	Homo sapiens

Homo
sapiens

P

NP_000264.1

Ocular

3513

211

Albinism 1
(Nettleship-
Falls) (OA1)

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MQAGRRGPG TPEPRPTQP MASPRLGTF CPTDRDATQL VLSFQPRAFH ALCGSGGLR
LALGLLQLLP GRRPAGPGSP ATSPASVRI LRAAAACDLL GCLGMVIRST VWLGFNFVD
SVSDMNHTEI WPAAFVCVSA MWIQLLYSAC FWLFCYAVD AYLVIRRSAG LSTILLYHIM
AWGLATLLCV EGAMLYPS VSRCEGLDH AIPHYVTMYL PLLLVLVANP ILFQKTVTAV
ASLLKGRQGI YTENERMGA VIKIRFFKIM LVLIICWLSN IINESLLFYL EMQTDINGGS
LKPVRTAAKT TWFIMGILNP AQGFLLSLAF YGWTGCSLGF QSPRKEIQWE SLTSAEAGA
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HGDL

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taaaacacaa cataatcaaa gacaactcac tcaggtcatct tcttctcta aataccagaa

Homo
sapiens

A

NM_014879

UDP-glucose
Receptor
(KIAA0001)

3544

212

213	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	<p>tctagtatgt aattgttttc aaactgtcc taaagacta acttgaagc aggcacagtt</p> <p>tgatgaagg ctagagagct gtttgaata aaagtcagg ttttttccct gatttgaaga</p> <p>agcaggaaa gctgacacc agacaatcac ttaagaaacc ccttatgat gatttcatg</p> <p>gcactgcaa ggaagaggaa tattaattgt atacttagca agaaaatttt tttttctga</p> <p>tagcacttg aggatattag atacatgcta aatatgttt ctacaaagac ttacttcatt</p> <p>taatgagcct ggggttctgg tgtagaata tttttaagta ggtttactg agagaaacta</p> <p>aatattggca tacgttatca gcaacttccc ctgttcaata gtatgggaaa aataagatga</p> <p>ctgggaaaaa gacacacca caccgtagaa catatattaa tctactggcg aatgggaaa</p> <p>gagaccattt tcttagaaag caataaaact tgattttttt aaatctaaaa ttacattaa</p> <p>tgagtgcata ataacacata aatgaaaaat tcacacatca atttttctg gaaaacagac</p> <p>ggattttact tctggagaca tggcatacgg ttactgactt atgagctacc aaaactaaat</p> <p>tcttttctcg ctattaactg gctagaagac attcatctat ttttcaaatg ttctttcaaa</p> <p>acatttttat aagtaaatgtt tgtatctatt tcatgcttta ctgtctatat actaataaag</p> <p>aaatgtttta atactg</p>	Homo sapiens
214	3582	Oxytocin Receptor	NM_000916	<p>MINSTSTQPP DESCSQNLLI TQIIPVLYC MVFIAGILLN GVSGWIFFYV PSSKSFIYLY P</p> <p>KNIVIADEV SLTFPFKILG DSGLGFWQLN VFVCRVSAVL FYVNMYSIV FFLISFDRI</p> <p>YKIVKPLWTS FIQSVSYSKL LSVIVWMLML LIAVPNIILT NQSVREVTQI KCIELKSELG</p> <p>RKWHKASNYI FVAIFWIVFL LLIVFYTAIT KKIFKSHLKS SRNSTSVKKK SSRNIFSIVF</p> <p>VFFVCFVPYH IARIPTYKSO TEAHYSCQSK EILRYMKEFT LLLSAANVCL DPLIYFFLCQ</p> <p>PFREILCKKL HIPLKAQNLD DISRIKRGNT TLESTDTL</p> <p>tgtttaaggct ctgggaccaa cgtcggcga accagctccg ctccggaggg gtctgcgcg A</p> <p>ctggcctcgc cgcgcccta cggaccctg cgcatagtgc agctcagcc ccaggcacag</p> <p>cgcgcctacc agacgcctc cgcgcgcga gctcggaggg cgcctcctgc tcgctcctg</p> <p>taccatcca gcaccagcc agcctgcgcg gaggggattc caaccaggc tccagtga</p> <p>gacctcagct tagcatcaca ttaggtgcag cggcaggcc atcccaactc gggccgggag</p> <p>cgcacgcgc actggggccg tcagtcgccc tgcaacttcc cccgggggag tcaactttag</p> <p>gtcgcctgc gactcggcg cagtggagc cgtgaacat cccgaggaa tggcacgctg</p> <p>ggggtctctg gcttggtgccc gtagaggat tcccgtcat ttgcagtggc tcaggaggag</p> <p>gtggacccag cagatccgtc cgtggagtct ccaggagtgg agccccggc gccctacac</p> <p>cctccgacac gccgatccg gccacgcgc gccaagccgt aaagggctcg aaggccggg</p> <p>cgcaccgctg ccgccagggt catggaggc gcgctcgag ccaactggag cgcgaggca</p> <p>gccaacgcca cgcgcgcgc cccggggcc gagggaacc gcaccgcg accccgcg</p> <p>cgaacgagg cctggcgcg cgtggaggtg cgcgtctgt gtctcactc gctcctggcg</p> <p>ctgagcggga acgctgtgt gctgctgctg ctcgcgacca cgcgcgaa gcaactcgcg</p> <p>ctctctctct tcatgaagca cctaagcat gccacactg tgggtggcgt gtttcaggtg</p> <p>ctgcccagct tgctgtggga catcacctc cgtctctacg ggcgcgacct gctgtgccg</p> <p>ctggtcaagt actgcaggt ggtgggcatg ttgcctcca cctacctgct gctgctcatg</p> <p>tccctggacc gctgcctggc catctgccag ccgctgcgct cgtgcgcg ccgaccgac</p> <p>cgcctggcag tgctcgcac tgggctcggc tgcctgggtg ccagegcgc gcagggtgac</p> <p>atctctctc tgcgcgaggt ggctgacgc gtcttcgact gctgggccgt ctctatccag</p> <p>ccctggggac ccaaggccta catcacatgg atcacgctag ctgtctacat cgtgcgggtc</p>	Homo sapiens

atcgtgctcg ctacctgcta cggccttata agcttcaaga tctggcagaa cttgcgggctc
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cgcgtggccc tggcgcgtgt cagcagcgtc aagctcatct ccaaggccaa gatccgcacg
gtcaagatga ctttcatcat cgtgctggcc ttcatcgtgt gctggacgccc ttcttcttc
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tgcagatgac acagttttgt atatagaaaa tccataaggaa ctcacacaca cacacacaca
cacacacgca cacagctatt agaactaata agcaagtcc gcaaggtttc aagatacaag
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ggggcttgta tctggaatat ataaataact cttataacac acaataaagg agaaaaataa
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aatcacaatg agattccagt ttacaatcac taggatgggt acaataaaaa gatggacaag

215	3582	Oxytocin Receptor	NP_000907.1	<p> aagcagtgct ggtgaggatg tagagaaact ggtagaaatt taaattgttg gtagggaatgt aaatggtgca cctgctttga aaaacagttt ggcagtacct caaaaagtta aacgtagagt gaccatatga ccagggaatg ccaatcctag gtatttacc ccaagaaatg aacagtgaca tacacacaaa aacttgtaga ccaatgttca tagcaacatt atttgaata gcaaaaaagt ggaacaacc caaatgtcta ccaatgatg aatgggaat aaaaatgtgt ctgtccacgc aatggaacat tattagactc taaaaagaaa tgaagtactc acacatgcca caacatggat gagccttgaa aacttgctaa gtgaaagaag ccagggtgcaa aagccacat attgtctgac tgcatatgaaa tgcaatgtct aaaatggacg aatctatata gagtgaatat agattagcgt ttgccagggc ctggaggctg tgagagatga ggcagacta ctaagggttt ggggtttctt tttcgggtga tgaataatgt cgaataatgt ggtgattgtg cacgattttg agaattgact aaaaaccaat gaactttaaa aaataaaaaa aacacaaa MEGALANWS AEANASAP PGAEGRNRTAG PPRNEALAR VEVAVLCLIL LLALSGNACV P LLALRTTRQK HSRLEFFMKH LSIADLVAV FQVLPOLLWD ITFRFYGPDL LCRLVKYLQV VGMFASTYLL LLMSLDRLA ICQPLRSLRR RTDRLAVLAT WLGLVASAP QVHIFSLREV ADGVFDCWAV FIQPWGPKAY ITWITLAVYI VPVIVLATCY GLISFKIQN LRLKTAASAA AEAPEGAAAG DGGRVALAR SSVKLISKAK IRTVKMTFII VLAFIVCWTP FFFVQMWVSW DANAPKEASA FIIVMLLASL NSCNPWIMY LFTGHLFHEL VQRFLLCSAS YLKGRRLLGET SASKKSNSS FVLSHRSSQ RSCSQPSTA cggcacgagg caccocgaga ggagaagcgc agcgagtggt cgagaggagc cccttgtggc A agcagcacta cctgcccaga aaaaatgctgg aggtggggc tgcccccagg cctgggggacc tgtttttcct gttcccgcga gattccctg cagcccggtc caggtccagg cgtgtgcatt catgagttag gaaccctgc aggcgtgag catcctgacc tggagagcag gggctgggtca ggcgatggc agcagacctg ggcctctgga atgacacct caatggcacc tgggatgggg atgagctggg ctacagtggc cgtctcaacg aggaactcaa gtacgtgctg ctgcctgtgt cctacggcgt ggtgtgctg cttgggtgt gtctgaacgc cgtggcgctc tacatcttct tgtgccgct caagacctg aatgcgtcca ccacatatat gttccacctg gctgtgtctg atgcaactgta tgcggcctcc ctgcccgtgc tggcttatta ctacgcccgc ggcgacct ggcccttcag caggtgtctc tgcaagctgg tgcgttctct cttctacacc aacctttact gcagcatcct cttctcacc tgcacagcg tgcacgggtg tctggcgctc ttacgacctc tgcgtccct gcgtggggc cggcccgct acgctgcgg ggtggccgg ggcgtgtggg tgttgggtgt ggcctgccag gcccctgct tctactttgt caccaccagc ggcgcgggg ggcggtaac ctgccacgac acctgggac ccgagctctt cagccgcttc gttggcctaca gtcagtgcat gctgggctg cttctgcgg tgcctttgc cgtcactctt gttgtttacg tgtctatggc tggcgactg ctaaaagccag cctacggggc cctggcggc cctccatagg ccaagcgcaa gtccgtgctg acctatgct tgggtgtggc tgtcttgc cctgtcttcc tgccattcca cgtcaccgc acctctact actccttccg ctcgctggac ctcagctgcc acacctcaa cgcctacac atggcctaca aggttaccg gccgctggc agtgctaaca gttgcttga cccgtgctc tacttctgg ctgggcagag gctcgtacgc ttgcccag atgccaagcc acctactgc ccagccctg ccaccccgcc tcgcccagc ctggccctgc gcagatccga cagaactgac atgcagagga taggagatgt gttgggcagc agtgaggact tcaggcggac agagtccac cggctgtgta gcgagaacac taaggacatt cggctgttag </p>	Homo sapiens
216	3589	Purinegic Receptor P2Y, G- protein coupled, 2 (P2RY2)	NM_002564	<p> cggcacgagg caccocgaga ggagaagcgc agcgagtggt cgagaggagc cccttgtggc A agcagcacta cctgcccaga aaaaatgctgg aggtggggc tgcccccagg cctgggggacc tgtttttcct gttcccgcga gattccctg cagcccggtc caggtccagg cgtgtgcatt catgagttag gaaccctgc aggcgtgag catcctgacc tggagagcag gggctgggtca ggcgatggc agcagacctg ggcctctgga atgacacct caatggcacc tgggatgggg atgagctggg ctacagtggc cgtctcaacg aggaactcaa gtacgtgctg ctgcctgtgt cctacggcgt ggtgtgctg cttgggtgt gtctgaacgc cgtggcgctc tacatcttct tgtgccgct caagacctg aatgcgtcca ccacatatat gttccacctg gctgtgtctg atgcaactgta tgcggcctcc ctgcccgtgc tggcttatta ctacgcccgc ggcgacct ggcccttcag caggtgtctc tgcaagctgg tgcgttctct cttctacacc aacctttact gcagcatcct cttctcacc tgcacagcg tgcacgggtg tctggcgctc ttacgacctc tgcgtccct gcgtggggc cggcccgct acgctgcgg ggtggccgg ggcgtgtggg tgttgggtgt ggcctgccag gcccctgct tctactttgt caccaccagc ggcgcgggg ggcggtaac ctgccacgac acctgggac ccgagctctt cagccgcttc gttggcctaca gtcagtgcat gctgggctg cttctgcgg tgcctttgc cgtcactctt gttgtttacg tgtctatggc tggcgactg ctaaaagccag cctacggggc cctggcggc cctccatagg ccaagcgcaa gtccgtgctg acctatgct tgggtgtggc tgtcttgc cctgtcttcc tgccattcca cgtcaccgc acctctact actccttccg ctcgctggac ctcagctgcc acacctcaa cgcctacac atggcctaca aggttaccg gccgctggc agtgctaaca gttgcttga cccgtgctc tacttctgg ctgggcagag gctcgtacgc ttgcccag atgccaagcc acctactgc ccagccctg ccaccccgcc tcgcccagc ctggccctgc gcagatccga cagaactgac atgcagagga taggagatgt gttgggcagc agtgaggact tcaggcggac agagtccac cggctgtgta gcgagaacac taaggacatt cggctgttag </p>	Homo sapiens

Homo
sapiens

P

NP_002555.1

Purinerbic
Receptor
P2Y, G-
protein
coupled, 2
(P2RY2)

3589

217

agcagaacac ttacagcctgt gcaggtttat attggaagc tgtagaggac caggacttgt
gcagacgcca cagtcctccc agatatggac catcagtgcac tcatgtgga tgaccccatg
ctccgtcatt tgacaggggc taggatatt cactctgtgg tccagagtca actgttccca
taacccttag tcatcgtttg tgtgtataag ttgggggaat taagtttcaa gaaaggcaag
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RLKTNASTT YMFHLAVSDA LYAASLPLV YYYARGDHP FSTVLCKLVR FLFTNLVCS
ILFLTICSVH RCLGVLRPLR SLRWGRARYA RRVAGAVWVL VLACQAPVLY FVTTTSARGGR
VTCHDTSAPL LFSRFVAYSS VMLGLLEAVP FAVILVCYVL MARRLLKPAY GTSGGLPRAK
RKSVRTIAV LAFVAFALFLP FHVTRTLVYS FRSLDLSCHT LNAINMAYKV TRPLASANSC
LDPVLYFLAG QRLVRFARDA KPPTGPSPAT PARRRLGLRR SDRTDMQRIG DVLGSSSEDFR
RTESTPAGSE NTKDIRL

Homo
sapiens

A

NM_002563

Purinerbic
Receptor
P2Y1

3595

218

ccccctccc cggggatcca gttcgccctgc tcccttcgc tgctgggctt ttccgatgct
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219	3595	Puriner Receptor P2Y1	NP_002554.1	<p> ttaaaaaaat aatagaagta gaaatgcccc catccacact tagcttggtt gggtttgctt tcacagtctc tctctctctc gactagaagt atgtataata aaacaatact acctagttaa acatttactt tctcttttgc ctttaaaatg tgcaggcttt ttgtttttaa gtgtgtgtgc acatgagtac tgggctgtt ttgtatatta gtaatttctc taagaaaact agccccctgc aacttgagtt tgtggtttat ctaggcttta ttgtttttt aaaaaccaca gtaggaataa aaaatctata ttctcagaaa tatctagcat ggtatataac aaacacataa actcatcagt tcatccggca tcagatcaat ggaatctctga gcggggtgtt ttttccagt tcttataagc atagatgata gttgactgag ttcttttagg gcattgaata gacaagttaa gctaatgaat ttaaaagcct gaaaagtgat tgttttccag ttatttcttg aaaaggtctc attatatatt ggggtgctaaa tgtttgatgg gaaaagcctg catatatatt cgtactggta aaatgcattc aaaaataata aagtgcattg attttccttg taaacacat gagctctctt agacatcttg tgataaagag catttactg cccactgct gtgcaatgcc ttaggacttt gtttgtgttc caggacaagt gttcactcac atctgtaaaa acaattttaa gaattgcaaa taaattacag accaaagatt gactaaagtc aaataactgt tagtaagttag aagatatatt gacaggagga cagtatttca gaaaaggaga gttgacagt catccacaag ccatagcctc caagtatact ctcaaatgta tgaagcaact ggggtgggca gaagacattt tagaatgagg gccttagtt taaattaaag tcatggtgga gaagactctt gcttccacca agtgtttgaa aacacaaaat acgatataaa aaaaaaaa aaaa acgatataaa aaaaaaaa aaaa </p>	Homo sapiens
220	3596	Puriner Receptor P2Y5	NM_005767	<p> ctgatgaaag tgcttccaaa ctgaaaaattg gacgtgcctt tacgatggta agcgttaaca A gctccactg cttctataat gactccttta agtacacttt gtatgggtgc atgttcagca tgggtgttgt gcttgggta gtatccaatt gtgttgccat atacatttc atctgcgtcc tcaagtcctg aatgaaact acaacttaca tgattaaact ggcaatgtca gacttgcttt ttgtttttac ttacccttc aggatttttt acttcacaa acggaattgg ccatttggag atttactttg taagatttct gtgatgctgt ttatatacaa catgtacgga agcattctgt tcttaacctg tattagtga gatcgatttc tggcaattgt ctaccattt agtcaaaaga ctctaagaac caaaagaaat gcaaagattg ttgactggtt actgtgatcg gaggaagtgc accgcctgt ttgttctagt ctaccactc tagggtaac aatgcctcag aagcctgctt tgaataatttt ccagaagcca catggaatac atatctctca aggattgtaa ttttcatcga aatagtggga ttttttattc ctctaatttt aaatgtaact tgttctagta tgggtgctaaa aactttaacc aaaccagtta cattaagttag aagcaaaaata aacaaaata aggttttaaa aatgattttt gtacatttga tcatattctg ttctgtttt gttccttaca atatcaatct tttttatat tctcttgta gaaacaaaac atttgttaat tgcctcagtag tggcagcagt aaggacaatg taccacaatc ctctctgtat tgctgtttcc aactgttgtt ttgacctat agtttactac ttacatcgg aacaaattca gaattcaata aaaaataaaa </p>	Homo sapiens

221	3596	Purinerigic Receptor P2Y5	NP_005758.1	actggtctgt caggagaagt gacttcagat tctctgaagt tcattggtgca gagaatttta ttcagcataa cctacagacc ttaaaaagta agatatttga caatgaatct gctgcctgaa ataaaaccat taggactcac tgggacagaa ctttcaag MVSVNSSHCF YNDFEYTL GCMFMSVFL GLVSNCAIY IFICVLKVRN ETTTYMINLA P MSDLLFVFTL PFRIFYFTTR NWPFGLLCK ISVLMFYTNM YGSILFLTIC SVORELAIVY PFKSTLRTK RNAKIVCTGV WLTVIGGSAP AVEFQSTHSQ GNNASEACFE NFPEATWKTY LSRIVIFIEI VGFFIPLIN VTCSSMLKT LTKPVTLSRS KINKTKVLKM IFVHLIIFCF CFVPYNINLI LYSLVRTQTF VNCSSVAAVR TMYPTLCIA VSNCCFDPV YYFTSDTIQN SIKMNWSVR RSDRFSEVH GAENFIQHLN QTLKSKIFDN ESAA	Homo sapiens
222	3597	Purinerigic Receptor P2Y6	NM_004154	aaaggacagag gaggggcoct tcctgtcagc tggctggag cagaggtggc tttgtctttt A cggaagaact gttctgtgg aatttgtgt tatttcccat caagatcaa ggacctgctc tggggctacc tcaggggccc acaggatgag gggctgggtt tcagatgagt tttctgcttg cctgtcatct ggatagtgc taaataattg caaactgctt tcttgtcagt gtcttgctca ttcttcata cactcctgat atgtcttca gtttccctat ctgctgcctc tccagacttc tgccagaaca ttgacgcga cagtttcagg cacagaactg actggcagca ggggctgctc cacgagtggg aattgtccc agcacttcac ggactgcaag cgaggcactt gctaaactct ggataaacaag acctctgcca gaagaacctat ggctttggaa ggcggagttc aggtgagga gatgggtgcg gtcctcagtg agcccctgcc tccctgaaca taggaaaccc acctgggcag ccatgggaatg ggacaaatggc acaggccagg ctctgggctt gccaccacc acctgtgtct accgcgagaa cttcaagcaa ctgctgtgc cactgtgta ttcggcggtg ctggcggtg gcctgcccgt gaacatctgt gtcattacc agatctgcac gtcgcgcgg gccctgacc gcacggccgt gtacaccca aacctgtctc tggctgacct gctatatgcc tgcctccctg ccctgctcat ctacaactat gccaaagtg atcactggc ctttggcgac ttgcctgccc gcctgggtccg cttcctcttc tatgccaacc tgcacggcag cactctcttc tccacctgca tcagcttcca gcgtacctg gcatctgcc accgctggc cccctggcac aaagtgggg gccgcccggc tgcctggcta gtgtgtgtag ccgtgtggc ggccgtgaca acccagtgcc tgccacagc catcttcgt gccacaggca tccagcgtaa ccgcactgtc tgctatgacc tcagcccgcg tgccttgcc accactata tgcctatgg catggctctc actgtcatcg gcttctctgt gcccttctgt gccctgtgg cctgtactg tctcctggc tgcgcctgt gccgccagga tggcccggca gacctgtgg ccaggagcg gctggcaag gcggcccga tggccgtggg ggtggctgt gcccttgcca tcagcttctt gccctttcac atcaccaaga cagctacct ggcagtgcg tcgacgcgg gcgtcccctg cactgtattg gaggcctttg cagcggccta caaaggcac cgccgctttg ccagtgcac cagctgtctg gacccatcc tcttctactt caccagaag aagtccgcc ggcagaccaca tagctctca cagaaactca cagccaaatg gcagaggcag ggtcgtgtg tcttccaggt cctgggcagc cttcatattt gccattgtgt ccggggcacc aggagcccca ccaaccccaa accatgcgga gaattagagt tcagctcagc tgggcatgga gttaaatcc ctacacggac ccagaagctc accaaaaact atttcttcag cccctctct gccccagacc ctgtgggcat ggagatggac agacctgggc ctggctcttg agaggtccca gtcagccatg gagagctggg gaaacacat taaggtgctc acaaaaatac agtgtgacgt gtactgtcaa aa	Homo sapiens

223	3597	Purinergic Receptor P2Y6	NP_004145.1	MEWDNGTGA LGLPPTTCVY RENFKQLLLP PVYSAVLAAG LPLNICVITQ ICTSRRALTR P TAVYTLNLAL ADLLYACSLP LLIINYAQGD HWPEGDFACR LVRFIFYANL HGSILFLTCI SFQRYLGICH PLAPWHKRG RRAAWLVCVA VWLAVTTQCL PTAIFAATGI QNRNRTVCYDL SPPALATHYM PYGMALTVIG FLPLFAALLA CYCLACRLC RQDGPAPVA QERRGKAARM AVVAAAFAI SFLPFHITKT AYLAVRSTPG VPCTVLEAFA AAYKGTTRPFA SANSVLDPII FYFTQKKFRR RPHELLQKLT AKWQRQGR	Homo sapiens
224	3599	G Protein- Coupled Receptor 23 (GPR23)	NM_005296	A ccctgcagc cagcaggcct cctgaaaaaa aagtcacatg gtgacagaag attcattgac ttccaattcc aagattcaaaa ttcaagcctc agaccagggt tgggcaatgc tactgccaat aatacttgca ttgttgatga ttcccttcaag tataatctca atggtgctgt ctacagtgtt gtattcatct tgggtctgat aaccaacagt gtctctctgt ttgtctctgt ttccgcatg. aaaaatgagaa gtgagactgc tatttttattc accaatctag ctgtctctga ttgtcttttt gtctgtacac taccttttaa aatatttttac aacttcaacc gcactggcc ttgtggtgac accctctgca agatctctgg aactgcattc cttaccaca tctatgggag catgctcttt ctacactgta ttagtgtgga tcgtttcctg gccattgtct atccttttgc atctctgact attaggacta ggagggaattc tgccattgtg tgtgtggtg tctggatcct agtctcagt ggcggtattt cagcctctt gttttccacc actaatgtca acaatgcaac caccacctgc ttggaaggct tctccaaaog tgtctggaag acttatttat ccaagatcac aatattttat gaagtgtgtg ggtttatcat tctcttaata ttgaatgtct ctgtctctc ttgtgtgctg agaactcttc gcaagcctgc tactctgtct caaatgggga ccaataagaa aaagtactg aaatgatca cagtacatat ggcagtcttt gtggtatgct ttgtacccta caactctgtc ctctcttgt atgacctgtt gcgctcccaa gtattacta attgcttttt ggaagattt gcaagatca tgtaccat cactttgtgc cttgcaactc tgaactgttg ttgtgacctt tcatctatt attcaccct tgaatccttt cagaagtctt tctacatcaa tgcacacatc agaatggagt cctgttttaa gactgaaaca cctttgacca caagccttc ccttcagct attcaagggt aagtgtgga tcaaacaca aataatggtg gtgaattaat gctagaatcc accttttagg tatgagaaat gtgttcaggt ccagatatgg ttctcctat aattttctt atgctataaa ctaaagattt gaagctaatg atactgagaa taatgcacca aatccagtc aatacatttg ttggaaggta tactgtagag tttttattgc tgtttgttc agtaattata ggtcaaatct aattacaaca accaagatgg attgcaaac tcttctgctt ggttggaatt tcatgtatc gcattatcca ggtggctagt ggcatttgat aatatagaga tgaattgaa actttcaaaa aggtatttct attccaatga tatttggtaa ttagggtggg cctataata tagaacaat tcagggtatt ttaaaaaatt gtgttactac tgatatatgc tagttttatt ttattttttt ggaactgtcat tgagtttatt ttagcacaag aatattttta gcctaacatt attaataga aatgtgtcaa atttttaaca ttggtaaaa atgttatgtg cattttgaa acagaaaaa aatgtcgttg gcatgtacgt gggtgggaag aaaaagaaa ttaacaggat ttacacaatt ataatcacca gcagtgtgag tttaaaaaa ttcgttgtt ttacaccaa ttaaaatttt catgtcaaac ttcaagcca gaaagctgct aaatcgtgt ctggcaggt aagctggaa aattacttaa aacaggaaa tgtcaataaa aaaacttgag caacaccaac atattttttc ttaaaatgtc acgttatctt catttggga aactagggtc tataaaatat ttatctctcc tgtttactt tggagcacag cacagccaga aagggtgctc atttgtgccc aggtcaggag caaattgaaa aaaaaataa	Homo sapiens

225	3599	G Protein- Coupled Receptor 23 (GPR23)	NP_005287.1	agtaatacta aaaaatcaaa ctataaacc aaaaactta ttaaaacctg aattaatcct ttttggagg aggagtagag atataaacc tgaataact tattctttct tategaattt tggagcctaa tatagccagg agctgctgaa ttgtgcccc tggattgaa ccaataaaaa aaaaaaaaa aaatttctt MGDRRFIDFQ FQDSNSSLRP RLGNATANNT CIVDDSEKYN LNAVYSWVF ILGLITNSVS P LFVFCFRMKM RSEIFAIFITN LAVSDLLFVC TLPEKIFYNF NRHPFPGDTL CKISGTAFLT sapiens NIYGSMLFLT CISVDRFLAI VYFPRSRTIR TRRNSAIVCA GWILVLSSG ISASLFSTTN VNNATTTCFE GFSCRVMKTY LSKITIFIEV VGFIIPILIN VSCSSVVLRT LRKPATLSQI GTNKKKVLKM ITVHMAVFW CFVPYNSVLF LYALVRSQAI TNCFLERFAK IMYPITLCLA TLNCCFDPFI YYFTLESFQK SFYINAHIRM ESFKTETPL TTKPSLPAIQ EEVSDQTNN GGELMLESTF
226	3638	Parathyroid Hormone Receptor 2 (PTH2)	NM_005048	gcccgggtggc ccgggcccgga ccaccccgag tgcgcgtcgt tactggccac aagtttgctc A tgggccagcc aagttggcaa cttggaagct tctcccgggc tctggaggag ggtccctgct tcttcttaca gccgttcgg gcatggccgg gctgggggag tgcgtccacg tctgggggtg gctaagtctc ggcagctgcc tctggccag agccagctg gattctgatg gcaccattac tatagaggag cagattgtcc ttgtgctgaa agcgaagta caatgtgaac tcaacatcac agctcaactc caggaggag aagtaattg ttccccgaa tgggatggac tcatttggtg gcccagagga acagtggga aaatatcggc tgttccatgc cctccttata ttatgactt caaccataaa ggagttgctt tccgacactg taaccccaat ggaacatggg attttatgca cagcttaaat aaacatggg ccaattattc agactgcctt cgtttctgc agccagatat cagcatagga aagcaagaat tctttgaacg cctctatgta atgtataccg ttggctactc catctctttt ggttccctgg ctgtggctat tctcatcatt ggttacttca gacgattgca ttgcactagg aactatatcc acatgcactt atttgtgtct ttcattgctga gagctacaag catctttgtc aaagacagag tagtccatgc tcacatagga gtaaggagc tggagtcctt aataatgcag gatgaccac aaattccat tgaggcaact tctgtggaca aatcacata tatcgggtgc aagattgtctg ttgtgatgtt tatttacttc ctggtacaa attattattg gatcctgggtg gaaggtctct acctgcataa tctcatcttt gtggctttct ttccggacac caaatacctg tggggcttca tcttgatagg ctgggggttt ccagcagcat ttgttgcagc atgggctgtg gcacgagcaa ctctggctga tgcgaggtgc tgggaactta gtgctggaga catcaagtgg atttatcaag caccgatctt agcagctatt gggctgaatt ttattctgtt tctgaatacg gttagagttc tagtaccac aaatctggag accaatgcag ttgggcatga cacaaggag caatacagga aactggccaa atcgacactg gtcctggtcc tagtctttgg agtgcattac atcgtgttcg tatgctgcc tcactccttc actgggctcg ggtgggagat ccgcatgcac tgtgagctct tcttcaactc ctttcagggt ttctttgtgt ctatcatcta ctgctactgc aatggagagg ttccaggcaga ggtgaagaag atgtggagtc ggtggaatct ctccgtggac tggaaaagga caccgccatg tggcagccg agatgggct cagtgtctac caccgtgac cagacacca gcagccagc acaggtggcg gccagcacac gcattggtgct tatctctggc aaagctgcca agatcgccag cagacagcct gacagccaca tcactttacc tggctatgct tggagtaact cagagcagga ctgcttgcca cactctttcc acgaggagac caagggaagat agtgggagc agggagatga tattctaag gagaaagcct ccaggcctat ggaatctaac ccagacactg aaggatgcca aggagaaact gaggatgttc tctgaatgga

227	3638	Parathyroid Hormone Receptor 2 (PTHr2)	NP_005039.1	<p> catttggtgc tgactttcat gggctggtcc aatggctggt tgtgtgagag ggccttggtg atactcctat gcttgagttc aaaggctgaa aattcagtta aggtttact taataatagt ttttaggctc catgaattgg ctctctgtaa tactaacgac atgaaatgc aagtgtcaat ggagtagttt attaccttct attggcatca agttttcctc taaatgaatg tatggtattt gctctgtgat tgttcatttt ttctgtctac ttttgggtag aaaaaagatt caattgcttg gctgtagctt tctctcatat atatcacctt aaataaatg aagatctttt agtgtgtatc attttccttt tagaaactag tatctcttta tttcttactt taatgtactt ctatcacatgc atattattttg cctgtgcata ggagcaatta ggatctaaaa aaatatatgg gaagataaaa gatctaagaa caagtacttg ctgaaaaatt agttggctgg acattgataa aataatgcat ttataacaat tacatgtgtt ttgggaaca agaaaaattt ctcaaaaaag aatatttcac acatcccttc ttttgaatgg cctctttgtg accagccaga cctcaggctt tcaactcttc ttctttgtaa accatgtcat ttggaagat ttctcagtt agtgagcttg tgtctgcaaa ttgatttttgt ttgtaaatgta ttgtgatagc aaatcatgct gcactatat ctttttcttg tttgagctgt tactacattg tacatggcat gtgggatcaa ttaaaaaattt gttttaaaaa t </p>	Homo sapiens
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	NM_000316	<p> GNCPEWDGL ICWPRGTGK ISAVPCPPYI YDFNHKGVAF RHCNPNGTWD FMHSLNKTWA NYSDCRLRFLQ PDISIGKEF FERLYMYTV GYSISFGSLA VAILIIGYFR RLHCTRNYYIH MHLFVSFMR ATSIFVKDRV VHAHIGVKEL ESLIMQDDPQ NSIEATSVDK SQYIGCKIAV VMFIYFLATN YWILVEGLY LHNLFVAFV SDTKYLWGF I LGWGFPAAV VAAWAVARAT LADARCWELS AGDIKIYQA PILAAIGLNF ILFLNTVRVL ATKIWETNAV GHDRKQYRK LAKSTLVLLV VFGVHYIVFV CLPHSFTGLG WEIRMHCELF FNSFQGFVS IICYCNGEV QAEVKKMWSR WNLSVDWKRT PPCSRRCS QSQVAASTR MVLISGKAAK IASRQPDISHI TLPGYVWSNS EQDCLPHSFH EETKEDSGRQ GDDILMEKPS RMESNPDTTE GCGETEDVL </p>	Homo sapiens

229	3640	Parathyroid Hormone Receptor 1 (PTHr1)	NP_000307.1	<p>catggccttc ttctcagaga agaagtacct gtggggcttc acagtcttcg gctggggtct gcccgtgtc ttctgggtcgtg tgtgggtcag tgtcagagct accctggcca acacgggtg ctgggacttg agctccggga acaaaaagtg gatcatccag gtgcccacc ttgctccat tgtgtcaac ttcatcctct tcatcaatat cgtccgggtg ctgcccacca agctgaggga gaccaacgcc ggcgggtgtg acacacgga cagtaccgg agctgctca aatccacgt ggtgtcatg cccctctttg gcgtccacta cattctctc atggccacac catacacga ggttcaggg acgtctggc agtccagat gcactatgag atgctcttca actcctoca gggatttttt gtgcgaatca tatactgtt ctgcaatggc gaggtacaag ctgagatcaa gaaatcttg agcgcgtgga cactggcact ggacttcaag cgaaggcac gcagcgggag cagcagctat agctacggc ccatggtgtc ccacacaagt gtgaccaatg tcggcccccg tgtgggactc ggctgccc ctagccccg cctactgcc actgccacca ccaacggcca ccctcagctg cctggccatg ccaagccagg gacccagcc ctggagacc tcgagaccac accacctgcc atggctgctc ccaaggacga tgggttctc aacggctcct gctcaggcct ggacgaggag gcctctggc ctgagcggc accctgccct ctacaggaaag agtgggagac agtcatgtga ccaggcgtg ggggctggac ctgctgacat agtggatgga cagatggacc aaaaatggg tgggtgaatg atttccact cagggccttg ggccaagagg aaaaacaggg aaaaaaagaa aaaaaaaga aaaaagaa</p>	Homo sapiens
230	3732	PACAP Receptor Type 1	NM_001118	<p>agcccaagaga cacattggg ctgacctgcc gctgctgtca gtgggaggcc agtgggtgctg A gccaagaagt gtcatggctg gtgctgtgca cgtttccctg gctgtcact gcggggcctg tccgtggggc cggggcagac tccgcaagg acgcgcagcc tgcaagtccg cggcccagag acacattggg gctgacctg cgtgctgtc agtgggaggc cagtgggtgt gcgcaagaag tgtcatggct ggtgtgtgc acgtttccct ggctgctc ctccgtgtgc ctatggcccc tgccatgcat tctgactgca tcttcaagaa ggagcaagcc atgtgcctgg agaagatcca gagggccaat gagctgatgg gcttcaatga tctcttcca ggtgtcctg ggtgtggga caacatcac gtttgaagc ccgcccattg ggttgagatg gtccctgtca gctgcccctga gctcttccga atcttcaacc cagaccaagt ctgggagacc gaaaccattg gagagtctga ttttggtgac agtaactcct tagatctctc agacatggga gtggtgagcc ggaactgcac ggaggatggc tggctcggaac ccttccctca ttactttgat gcctgtgggt ttgatgaata tgaatctgag actgggggacc aggattatta ctacctgtca gtgaaggccc tctacacggt tggctacagc acatccctcg tcacctcac cactgcatg gtcactctt gtcgcttccg gaagctgcac tgcacacgca acttcatcca catgaacctg ttgtgtcgt tcatgtctgag</p>	Homo sapiens

231	3732	PACAP Receptor Type 1	NP_001109.1	<p> ggcgtatctcc gttcttcata aagactggat tctgtatgcy gagcaggaca gcaaccactg cttcatctcc actgtggaat gtaaggccgt catggttttc ttccactact gtgtgtgtgc caactacttc tggctgttca tcgaggccct gtacctcttc actctgtgg tggagacctt cttccctgaa aggagatact tctactggta caccatcatt ggctggggga ccccaactgt gtgtgtgaca gtgtgggcta cgtgagact ctactttgat gacacaggct gctgggatat gaatgacagc acagctctgt ggtgggtgat caaaggccct gtggttggct ctatcatggt taactttgtg cttttttattg gcatctatgt cactcttgtg cagaaacttc agtctccaga catgggagggc aatgagtcca gcatctactt ggcactggcc cgttccacc ttgtgctcat cccactattc ggaatccact acacagtatt tgccttctcc ccagagaatg tcagcaaaaag ggaagactc gtgtttgagc tggggctggg ctcttctccag gcttttggg ttgctgttct ctactgtttt ctgaatggtg aggtacaagc gcacagacac cgtctcttgg ccagcagtgg ggtgaaccgt tacttcgctg tggacttcaa gcaccgacac cgtctcttgg ccagcagtgg ggtgaatggg ggcaccagc tctccactt gagcaagagc agtctccaaa tccgcatgtc tggctctcct gctgacaatc tggccactg agccatgctc cctt </p>	Homo sapiens
232	3844	Apelin Receptor	NM_005161	<p> VHVSLAALL LLPMAPMHS DCIFKKEQAM KSAQRHIGA DLPLLSVGGQ WCWPRSRVMAG P WKPAHVGMV LVSCPELFRI FNPQVWETE TIGESDFGDS NSLDLSDMGV VSRNCTEDGW SEPFPHYFDA CGFEYESET GDQYVYLSV KALYTVGYST SLVTLTTAMV ILCRFRKLHC TRNFHMLNF VSEMLRAISV FIKDWILYAE QDSNHCFFST VECKAVMVFF HYCVVSNYFW LFTEGLYLF LLVETFFPER RYFYWYTIIG WGTPTVCVTV WATLRLYFDD TGCWDMNDST ALWVWIKGPV VGSIMVNFVL FIGIIVILVQ KIQSPDMGNN ESSIYLRAR STLLILPLFG IHYTVFAFSP ENVSKRERLV FELGLSFQ FVAVLYCFL NGEVQAEIKR KWRSWKVNRY FAVDFKRRHP SLASSGVNGG TQLSILSKSS SQIRMSGPLA DNLAT atgagggaag gtggtgattt tgacaactac tatggggcag acaaccagtc tgagtgtgag A tacacagact ggaatcctc gggggccctc atccctgcc tctacatgtt ggtcttctc ctgggacacca cgggaaacgg tctggtgctc tggaccgtgt ttcggagcag cgggagagaag aggcgtcag ctgatatctt cattgctagc ctggcggtgg ctgacctgac ctctgtggtg acgctgcccc tgtgggctac ctacacgtac cgggactatg actggccctt tgggaccttc ttctgcaagc tcagcagcta cctcatcttc gtcaacatgt acgccagcgt ctctgcctc accggcctca gcttcgaccg ctacctggcc atcgtgaggc cagtggccaa tgcctggctg aggctgctgg tcagcggggc cgtggccacg gcagttcttt ggtgctggc cgcctcctg gccatgctg tcatggtgtt acgcaccacc ggggacttgg agaaccacac taaggtgcag tgctacatgg actactccat ggtggccact gtgagctcag agtgggctg gtaggtgggc cttggggtct cgtccaccac cgtgggctt gtgggtccct tcaccatcat gctgacctgt tacttttca tcgcccacac catcgctggc cacttccgca aggaacgcat ctagggcctg cggaagcggc gccggtgct cagcatcacc gtggtgctgg ttgtgacctt tgcctgtg tggatgacct accactggt gaagacgctg tacatgctgg gcagctgct gacctggccc tgtgactttg acctctctc catgaacatc ttccctact gacctgcat cagctacgtc aacagctgoc taaacctct cctctatgcc ttttctgacc ccgcttccg ccaggcctgc acctccatgc tctgctgtgg ccagagcagg tgcgcaggca cctccacag cagcagtggg gagaagtcat ccagctactc ttctggggcag agccaggggc cgggccccaa catgggcaag </p>	Homo sapiens

233	3844	Apelin Receptor	NP_005152.1	ggtggagaac agatgcacga gaaatccatc cctacagcc aggagaccct tgtggttgac tag	Homo sapiens
				MEEGGDFDNY YGADNQSECE YTDWKSSGAL IPAIYMLVFL LGTTGNGLVL WTVFRSSREK P RRSADIFIAS LAVADLTFW TPLWATYTY RDYDWPFGTF FCKLSSYLIF VNMYSVFCL TGLSFDRLA IVRPVANARL RLRVSGAVAT AVLWVLAALL AMPVMVLRIT GDLENTTKVQ CYMDYSMTAT VSSEWANEVG LGVSSSTTVGF VVFTIMLTC YFFIAQTIAG HFRKERIEGL RKRRRLLSII VVLVVTFALC WMPYHLVKTL YMLGSLIHWP CDFLEFLMNI FPYCTCISYV NSCLNPFLYA FFDPRFRQAC TSMMLCCGQSR CAGTSHSSG EKSASYSSGH SQPGPNMGK	
234	3845	Chemokine- Like Receptor 1 (CMKLR1)	NM_004072	gaattcggca cgagtcaggg aagcagcccc ggcggccagc agggagctca ggacagagca A ggctccctgg gaagcctccg ggtgatagg ggtgtccagc tgcggcgctc tgggggttca gagggggatc ttgaatgaac aatgaatga actgcttctt gggcaaacag ccacagccag aggagcctgt gattggcaga aagaagccag ggtgtgcaag tctcccaac agcctcgagt ggcctgcagt cacagggaac cctcaggaag acctccgggg cagagaccag agggaagccc atctctccag cagaactgct tggatttttc taccagagg ctcagggtc tgcacaatg atagcagaag ctgatggcat ctagagatct aggcctggag tagcacagca tcaactctac cactttctgt tggtcacagc aactcaccat gccagtgcag attcaagggg aggagaaata gagtcacatt cttgatggga ggcgtgacat agaattggag atgaagatta caacacttcc atcagttacg gtgatgaata cctgattat ttagactcca ttgtggtttt ggaggactta tcccccttgg aagccaggtt gaccaggatc ttcttgggtg tggctacag catcgtctgc ttctctggga ttctgggcaa tggcttgggtg atcatcattg ccacctcaa gatgaagaag acagtgaaca tggcttgggt cctcaacctg gcagtgccag atttctctgt caacgtcttc ctcccaatcc atataccta tgccgccatg gactaccat ccagcgtctt cctgctgac tgcaagatca gcaacttctt tctcatccac aactcctctg tctgggtccca gaaccaccg atcatcagct ctgaccgtgt catctctgtg tctcctctg tctggtccca cctgctgac agcgttcgcc tggcttacat ggctgcatg gtcatctggg tcttggcctt ctctttagt tccccatctc tctgtcttcc ggacacagcc aacctgcatg ggaaaatatc ctgcttcaac aacttcagcc tgtccacacc tgggtcttcc tctggtccca ctcaactcca atggaccct gtgggggata gccggcacat ggtgggtgact gtcaccgtgt tctctgtgg cttcctggtc ccagtcctca tcatcacagc ttgtacctc acctcgtgt gcaaaactga gcgcaaccg ctggccaaga ccaagaagcc cttaagatt attgtacca tcaatcattac cttcttctc tgctgggtgcc cctaccacac actcaacctc cttagactcc accacactgc catgcctggc tctgtcttca gcctgggttt gccctggcc actgcccttg cagtgcctga cagctgcctg aaccctctc tgtatgtttt catgggtcag gacttcaaga agttcaaggt ggcctctctc tctgcctgg tcaatgctct aatgaagat acaggccact cttctacc cagccataga agctttacca agatgtcatc aatgaatgag aggacttcta tgaatgagag ggagaccggc atgctttgat cctcactgtg gaacctca atggactct tcaacctcag gacaccaag gatattctt ctgaagatca aggcaagaac ctcttttagca tccaccaatt ttcactgcat tttgcatggg atgaacagtg ttttatgtg ggaatctagg gcttggaaac cctttcttct agtggacaga acatgctgtg ttccatacag ccttggacta gcaatttatg cttcttggga ggccagcctt gactgactca aagcaaaaaa ggaagaattc	Homo sapiens

235	3845	Chemokine- Like Receptor 1 (CMKLR1)	NP_004063.1	MEDEDYNTSI IIATFKMKKT MFTSVFLTI LHGKISCENN IVCKLQNRRL ALAIANSCMN TSMNERETGM L	SYGDEYPDYL VNMVWFNLNLA ISSDRICISVL FSLSTPGSSS AKTKKPKFKII PILYVFMGQD FKFKVALEFS	DSIVVLEDLS VADFLFNVEL LPVMSQNHRS WPTHSQMDPV VTIIITFFLC WCPYHTLNL RLVNALSEDT	PLEARVTRIF PIHITYAAMD VRLAYMACMV GYSRHMVTV ELHHTAMPGS GHSSYPSHRS	LVVVYSIVCF YHWVFGTAMC IWVLAFFLSS TRFLCGFLVP VLIITACYLT VFSLGLPLAT FTKMSSMNER	P	Homo sapiens
236	3846	Sphingolipid Receptor Edg1	NM_001400	gtcgggggga cttcgcccctg cacaaaaagc cgccctctag accatggggc gtcaactatg gacaaggaga atcctggaga atgtactatt gctaacctgc cgggaaggga attgagcgct ctcttcctgc atgggctgga aagcactata ctgtactgca gctgtgctca cgggccttca ttcaagcgac caccocaga tcttcttct ccaccocagt caagccagag tagagttagt tatatatctt agctcctaaa tctttgtctg gtgtgcactt ttcatacccc ctgggggttgt tgggaagatg	gcagcaagat cttgagcgag ctggatcact cgctcgtctg ccaccagcgt atatacctgt acagcattaa acatctttgt ttattggcaa tctgtcttgg gtatgtttgt atatcacaat taatcagcgc ctgtatcag tctcttctg gaatctactc agccagcg cgctcttcat aggtgaagac actccggcac tcgggatacat ccatcatcgc aagacgaagg agaactggaa gtttggaaaa ggaggaagg tctgtgaac acccccctgg gggttcattt gagcttttag ctgtcttctt tcttcttctt atcatctata ggagggtgtt	gcgaagcgag gtcgggttt catgaacca gagtagcgcc cccgctgggc ccggcattac actgacctgc cttgcctgac tctggccctc ggccaccacc ggccctgtca gctgaaaatg ctgctgggtc tgcgtgttcc caccacggtc cagctctgag caacccatc gtcctgtctg cggcatggaa ggacaaccca gctgtccacc aaatctctgg ggagaatacg aatgcactgg agctttgatt ggccccctct gagatgtttt agggatgccc tctttactt tcttcaacgt ggaatgatcg aagatgggtt	ccgtacagat ccgagggcct ccctgaagc accccgctt aaggccacc gaaagctgaa gtgggtttca atttgaaaa tcagacctgt tacaagctca gctccctgt aaactccaca atctccctca agctgtctca ttcactctgc actcggagcc aagtcgctgg gcaccgctct ctcttcagag ctcttcagag attacactc aagtgcccg ttcagccgca gagaccatta caccggaagc gctcttact ctgcccaggga gttccgactg aacagcctgg gaagggtgga gatcaggctc ccttcagctg ccttcactaa tgtccccatg agtttcaaac tgatcatccc tatactttaa gtatctgaga tatactttag aacaaatgctc ttcgtgagg ccaaagtctc			

237	3846	Sphingolipid NP_001391.2 Receptor Edg1	catgtaagcg ggatccggtt tttggaattt ggtgaagtc actttgattt ctttaaaaaa catcttttca atgaaatgtg ttaccatttc atatccattg aagccgaagt ctgcataagg aagcccaact tatctaaatg atattagcca ggtacttggt tgccttagga gaaacagaca agcaaaacaa agtgaaaacc gaatggatta acttttgcaa accaaggag atttcttagc aaatgagtc acaaaatatg acatccgtct tccccactt tgttgatgtt tatttcagaa tcttggtga tcatattcaa gcaacaacat gttgtatttt gttgtgttaa aagtactttt cttgattttt gaatgtattt gtttcaggaa gaagtcattt tatggatttt tctaacccgt gttaactttt ctagaatcca cctcttgtg cccttaagca ttactttaac tggtagggaa cgccagaact ttttaagtcca gctattcatt agatagtaatt tgaagatatg tataaatatt acaaagaata aaaatatatt actgtctctt tagtatggtt ttcaagtcaa ttaaacccgag agatgtcttg tttttttaa aagaatagta tttaataggt ttctgacttt tgtggatcat tttgacata gctttatcaa cttttaaaca ttaataaact gatttttta aag MGPTSVPVK AHRSSVSDYV NYDIIVRHYN YTGKLNISAD KENSIKLTSV VFILICCFII P LENI FVLLTI WTKKFKHRPM YFIGNLALS DLLAGVAYTA NLLSGATTY KLTPAQWFLR EGSMFVALSA SVESLLAI AI ERYITMLKMK LHNGSNFRL FLLISACWVI SLILGGLPIM GWNCSALSS CSTVLPYHK HYILFCTTVF TLLLSIVIL YCRIYSIVRT RSRRLTFRKN ISKARSSEK SLALLKTVII VLSVFIACWA PLFILLLLDV GCKVKTCDIL FRAEYFLVLA VLNSGTNP II YTLTNKEMRR AFIRMSCK CPSGDSAGKE KRPIIAGNEF SRKSDNSSH PQKDEGNPE TIMSSGNVNS SS atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcacg ctcaccacg tgcctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaacgca tgaattttt cattggcaac ctggctctt gcgacctgt gccgggcat gcttaacaag tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccacgtc tggttcctca gggagggag tatgtctgtg gccctgggg cgtccacct gccttacga cgccaacaag aggcacgag tcttctctt gatcgggatg atcaaaatga ggccttacga tgccttcac gctggggcc cctccattc tgggctgaa ctgcctgcac tgctggctca tgccttcac cctccctac cctccctgcc ctctactcca agaagatcat tgcctctgc aatctccctg actgctctac cctccctacc cctccctgcc ctctactcca agaagatcat tgcctctgc atcagcatct tcacggccat cctggtgacc atcgtgatcc tctacgcac catctacttc ctggtgaagt ccagcagccg taaggtggcc aaccacaaca actcggagcg gtccatggca ctgctgcga cgtggtgat tgtggtgagc gtgttcacg cctgctggtc cccactcttc atcctcttc tcatgtatgt ggcctgcagg tgcaggcgt gccccactt cttcaaggct cagtggttca tctgttggc tgtgtcaac tccgctatga acccggtcat ctacacgctg gccagcaagg agatgcggcg ggcctcttc cgtctggtct gcaactgct ggtcagggga cgggggccc gcgctcacc catccagcct gcgctcgacc caagcagaag taaatcaagc agcagcaaca atagcagcca ctctccgaag gtcaaggaa accctgcccc cacagacccc tcctctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga tcatctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga MATALPPRLQ PVRNETLRE HYQYVGKLAG RLKEASEGST LTTVFLVIC SFIVLENLMV P LIAIWKNNKF HNRMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIGM CWLIAFTLGA LPILGNCLH	Homo sapiens
238	3847	Sphingolipid NM_005226 Receptor Edg3	atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcacg ctcaccacg tgcctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaacgca tgaattttt cattggcaac ctggctctt gcgacctgt gccgggcat gcttaacaag tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccacgtc tggttcctca gggagggag tatgtctgtg gccctgggg cgtccacct gccttacga cgccaacaag aggcacgag tcttctctt gatcgggatg atcaaaatga ggccttacga tgccttcac gctggggcc cctccattc tgggctgaa ctgcctgcac tgctggctca tgccttcac cctccctacc cctccctgcc ctctactcca agaagatcat tgcctctgc aatctccctg actgctctac cctccctacc cctccctgcc ctctactcca agaagatcat tgcctctgc atcagcatct tcacggccat cctggtgacc atcgtgatcc tctacgcac catctacttc ctggtgaagt ccagcagccg taaggtggcc aaccacaaca actcggagcg gtccatggca ctgctgcga cgtggtgat tgtggtgagc gtgttcacg cctgctggtc cccactcttc atcctcttc tcatgtatgt ggcctgcagg tgcaggcgt gccccactt cttcaaggct cagtggttca tctgttggc tgtgtcaac tccgctatga acccggtcat ctacacgctg gccagcaagg agatgcggcg ggcctcttc cgtctggtct gcaactgct ggtcagggga cgggggccc gcgctcacc catccagcct gcgctcgacc caagcagaag taaatcaagc agcagcaaca atagcagcca ctctccgaag gtcaaggaa accctgcccc cacagacccc tcctctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga tcatctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga MATALPPRLQ PVRNETLRE HYQYVGKLAG RLKEASEGST LTTVFLVIC SFIVLENLMV P LIAIWKNNKF HNRMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIGM CWLIAFTLGA LPILGNCLH	Homo sapiens
239	3847	Sphingolipid NP_005217.1 Receptor Edg3	atggcaactg cctcccgc gcgtctccag ccggtgcggg ggaacgagac cctgcgggag A cattaccagt acgtgggaa gttgggggc aggtgaagg aggcctcga ggcagcacg ctcaccacg tgcctctt ggtcatctg agcttcacg tcttgagaa cctgatggtt ttgattgcca tctgaaaaa caataaatt cacaacgca tgaattttt cattggcaac ctggctctt gcgacctgt gccgggcat gcttaacaag tcaacattt gatgtctggc aagaagacgt tcagcctgt tcccacgtc tggttcctca gggagggag tatgtctgtg gccctgggg cgtccacct gccttacga cgccaacaag aggcacgag tcttctctt gatcgggatg atcaaaatga ggccttacga tgccttcac gctggggcc cctccattc tgggctgaa ctgcctgcac tgctggctca tgccttcac cctccctacc cctccctgcc ctctactcca agaagatcat tgcctctgc aatctccctg actgctctac cctccctacc cctccctgcc ctctactcca agaagatcat tgcctctgc atcagcatct tcacggccat cctggtgacc atcgtgatcc tctacgcac catctacttc ctggtgaagt ccagcagccg taaggtggcc aaccacaaca actcggagcg gtccatggca ctgctgcga cgtggtgat tgtggtgagc gtgttcacg cctgctggtc cccactcttc atcctcttc tcatgtatgt ggcctgcagg tgcaggcgt gccccactt cttcaaggct cagtggttca tctgttggc tgtgtcaac tccgctatga acccggtcat ctacacgctg gccagcaagg agatgcggcg ggcctcttc cgtctggtct gcaactgct ggtcagggga cgggggccc gcgctcacc catccagcct gcgctcgacc caagcagaag taaatcaagc agcagcaaca atagcagcca ctctccgaag gtcaaggaa accctgcccc cacagacccc tcctctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga tcatctgca tcatggacaa gaacgcagca cttcagaatg ggtctctctg caactga MATALPPRLQ PVRNETLRE HYQYVGKLAG RLKEASEGST LTTVFLVIC SFIVLENLMV P LIAIWKNNKF HNRMYFFIGN LALCDLLAGI AYKVNILMSG KKTFSLSPTV WFLRESMFV ALGASTCSLL AIAIERHILTM IKMRPYDANK RHRVFLIIGM CWLIAFTLGA LPILGNCLH	Homo sapiens

240	3848	C-C Chemokine Receptor 9	NM_006641	<p> NLPDCSTILP LYSKKYIAFC ISIFTAILVT IVILYARIYF LVKSSSRKVA NHNNSERSMA LLRTVVIVVS VFACWSPLF ILFLIDVACR VQACPILFKA QWFIVLAVLN SAMNPVIYTL ASKEMRRRAFF RLVCNCLVRG RGARASPIQP ALDPSRSKSS SSNNSSHSPK VKEDLPHTDP SSCIMDKNAA LQNGIFCN gcccctcatc ccaggcagag agcaaccag ctcttcccc agacactgag agctggtggt A gctgctgtc ccaggagag tgcacagcc ctccacaagc cctattccca acatggctga tgactatggc tctgaatcca catcttccat ggaagactac gttaaactca acttcactga cttctactgt gagaaaaaca atgacaggca gtttgcgagc catttccctc cacccttgta ctggctcgtg ttcatcgtgg gtgccttggg caacagtctt gttatccttg tctactggta ctgcacaaga gtgaagacca tgaccgacat gttccttttg aatttggeaa ttgctgacct cctctttctt gtcactcttc ccttctggc cattgctgct gctgaccagt ggaagtcca gaccttcattg tgcaagggtg tcaacagcat gtacaagatg aacttctaca gctgtgtgtt gctgatcatg tgcacagcg tggacaggta cattgccatt gccaggcca tgagagcaca tacttggagg gagaaaaggc tttgtacag caaaatggtt tgctttacca tctgggtatt ggcagctgct ctctgcaccc cagaaatctt atacagccaa atcaaggagg aatccggcat tgctatctgc accatgggtt accctagcga tgagagcacc aaactgaagt cagctgtctt gacctgaag gtcattctgg ggttctctt tccctctgtg gtcatggctt gctgctatcc catcatcatt cacacctga tacaagccaa gaagtcttcc aagcacaagg cctaaaaagt gaccatcact gtccctgaccg tctttgtctt gtctcagttt cctacaact gcattttgtt ggtgcagacc attgacgct atgcatgtt catctccaac tgtgcccgtt ccaccaacat tgacatctgc ttcagggtca ccagaccat cgcttcttc cacagtgc tgaacctgt tctctatgtt tttgtgggtg agagattccg ccggatctc gtgaaaaacc tgaagaactt gggttgcac agccaggccc agtgggttcc atttacaagg agagaggaa gcttgaagct gtcgtctatg ttgctggaga caacctcagg agcactctcc cctgagggg tcttctctga ggtgcagtgt tcttttgaa gaaatgagaa atacagaaac agtttcccc ctgatgggac cagagagagt gaaagagaa agaaaactca gaaaggatg aatctgaact atatgattac ttgtagttag aatttgccaa agcaaatatt tcaaatcaa ctgactagt caggaggctg ttgatgggt cttgactgtg atgcccga tctcaaaagg aggactaagg accggcactg tgaggacccc tggctttgccc actgcccga gcatcaatgc cgtgcctct ggaggagccc ttggatttc tccatgcact gtgaacttct gtggcttcag ttctcatgct gcctctcca aaaggggaca cagaagcact ggctgctgct acagaccgca aaagcagaaa gtttcgtgaa aatgtccatc tttgggaaat ttctacct gctcttgagc ctgataacc atgcaggctc ttatagattc ctgatctaga acctttccag gcaatctcag acctaatctt cttctgttct cctgtttctg tcttgggcca gtgaaggctc ttgttctgat ttgaaacga tctgcaggctc ttgccagtga accctggac aactgaccac acccaagg catccaaagt ctgttggctt ccaatccatt tctgtgtcct gctggaggtt ttaacctaga caaggattcc gcttattcct tggtatgtg acagtgtct tccatggcct gagcaggag attataacag ctgggttcgc aggagcagc cttggccctg ttgtaggctt ttctgttga gtggcactg ctttgggtcc accgtctgtc tgctccctag aaaaagggtt ggttcttttg gccctctct tctgaggcc cactttatc tgaggaatc agtgagcaga tatgggcagc agccaggtag gcaaaagggg tgaagcgcag gccttgctgg aagctatctt acttccatgc ttctctttt cttactctat </p>	Homo sapiens
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241	3848	C-C Chemokine Receptor 9	NP_006632.2	at	agtggaaca ttttaaaagc ttttaactta gagattaggc tgaaaaaaat aagtaatgga attcaccttt gcatcttttg tgtcttttctt atcatgattt ggcaaaatgc atcacctttg aaaaatttc acatattgga aaagtgcctt ttaattgtga tatgaagcat taattacttg tcactttctt tacctgtct caatatatta agtgtgtgca attaaagatc aaatagatac at	Homo sapiens
242	3849	G Protein- Coupled Receptor GPR1	NM_005279	at	WADDYGEST SSMEDYVNFN FTDFYCEKNN VRQFASHFLP PLYWLVFIVG ALGNSLVILV P YWYCTRVKTM TDMFLNLAI ADLLFLVTLF FWALAAADQW KFQTFMCKV NSMYKMFYS CVLLIMCISV DRYIAIAQAM RAHTWREKRL LYSKMVCFTI WVLAALCIP EILYSQIKEE SGAIACTMVY PSESTKLKS AVTLKVLG FFLPFVVMAC CYTIIHTLI QAKKSSKHKA LKVTITVLTV FVLSQFPYNC ILLVQTIDAY AMFISNCAVS TNIDICFQVT QTIAFFHSCIL NPVLYVFGVE RFRDLVKTL KNLGCSISQAQ WVSTFRREGS LKLSMLLET TSGALSIL atggaagatt tggaggaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggccttttctt ctgggaattc caggaaatgc catcgtcatt tgggtcacgg ggcctaaagt gaagaagaca gtgaccactc tgggttctct caatcctagcc attgcggatt tcaattttct tctcttttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgcca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcacgaacc ctcaagaact ctctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaat tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaaatgagta tttgctactt gtgctctcat ttcaaggtga agaagcgaac agtcttgatc tcagtaggc attctggac aattctggtt gtggtgtgtg ctttgtgtgt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta ttcccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaatag ttgcttgaac cccatccttt atgtccta atgtccta tagtaagaag ttccaagctc gcttccgggt ctcagttgtc gagatactca agtacacact gtggaagtc agctgttctg gcacagtgaag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVLGVVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MEASVFFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTHWK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEI TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARFSSVA EILKYTLWEV SCSTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccacag gtttctgact tatttcttg gctgccgccc A gcggtcaca cccccgcaa ccagagcgca gaggcctcgg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagcccttc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctcta cagcgtcgtg gtggtcgtgg ggctgggtgg caactgcctg ctggtgctgg tgatgcgcgc ggtgcgcgcg ctgcacaacg tgacgaact cctcatcgcc aacctggcct tgcgcgcgt gctcatgtgc accgcctgcg tgccgctcac gctggcctat	Homo sapiens
243	3849	G Protein- Coupled Receptor GPR1	NP_005270.1	at	agtggaaca ttttaaaagc ttttaactta gagattaggc tgaaaaaaat aagtaatgga attcaccttt gcatcttttg tgtcttttctt atcatgattt ggcaaaatgc atcacctttg aaaaatttc acatattgga aaagtgcctt ttaattgtga tatgaagcat taattacttg tcactttctt tacctgtct caatatatta agtgtgtgca attaaagatc aaatagatac at	Homo sapiens
244	3850	G Protein- Coupled Receptor 10 (GPR10)	NM_004248	at	WADDYGEST SSMEDYVNFN FTDFYCEKNN VRQFASHFLP PLYWLVFIVG ALGNSLVILV P YWYCTRVKTM TDMFLNLAI ADLLFLVTLF FWALAAADQW KFQTFMCKV NSMYKMFYS CVLLIMCISV DRYIAIAQAM RAHTWREKRL LYSKMVCFTI WVLAALCIP EILYSQIKEE SGAIACTMVY PSESTKLKS AVTLKVLG FFLPFVVMAC CYTIIHTLI QAKKSSKHKA LKVTITVLTV FVLSQFPYNC ILLVQTIDAY AMFISNCAVS TNIDICFQVT QTIAFFHSCIL NPVLYVFGVE RFRDLVKTL KNLGCSISQAQ WVSTFRREGS LKLSMLLET TSGALSIL atggaagatt tggaggaac attatttgaa gaatttgaaa actattccta tgacctagac A tattactctc tggagctga tttggaggag aaagtcagc tgggagttgt tcactgggtc tccctgggtg tataattgtt ggccttttctt ctgggaattc caggaaatgc catcgtcatt tgggtcacgg ggcctaaagt gaagaagaca gtgaccactc tgggttctct caatcctagcc attgcggatt tcaattttct tctcttttctg cccctgtaca tctcctatgt ggccatgaat ttccactggc cctttggcat ctggctgtgc aaagccaatt ccttcactgc ccagttgaac atgtttgcca gtgttttttt cctgacagtg atcagcctgg accactatat ccacttgatc catcctgtct tatctcatcg gcacgaacc ctcaagaact ctctgattgt cattatatc atctggcttt tggcttctct aattggcggg cctgcccctg acttccggga cactgtggag ttcaataatc atactctttg ctataacaat tttcagaagc atgatcctga cctcactttg atcaggcacc atgttctgac ttgggtgaaa tttatcattg gctatctctt ccttttgcta acaaatgagta tttgctactt gtgctctcat ttcaaggtga agaagcgaac agtcttgatc tcagtaggc attctggac aattctggtt gtggtgtgtg ctttgtgtgt ttgctggact ccttatcacc tgtttagcat ttgggagctc accattcacc acaatagcta ttcccaccat gtgatgcagg ctggaatccc cctctccact ggtttggcat tcccaatag ttgcttgaac cccatccttt atgtccta atgtccta tagtaagaag ttccaagctc gcttccgggt ctcagttgtc gagatactca agtacacact gtggaagtc agctgttctg gcacagtgaag tgaacagctc aggaactcag aaaccaagaa tctgtgtctc ctggaacacag ctcaataa MEDLEETLFE EFENYSYDLD YYSLESDLEE KVLGVVHWV SLVLYCLAFV LGIPGNAIVI P WFTGLKWKKT VTTLWFLNLA IADFTFLFL PLYISYVAMN FHWPFGIWLC KANSFTAQLN MEASVFFLTV ISLDHYIHLI HPVLSHRHRT LKNSLIVIF IWLLASLIGG PALYFRDIVE FNNHTLCYNN FQKHPDLTL IRHVLTHWK FIIGLYFPLL TMSICYLCLI FKVKKRTVLI SSRHFWTILV VVAFVVCWT PYHLFSIWEI TIHNSYSHH VMOAGIPLST GLAFLNSCLN PILYVLISK FQARFSSVA EILKYTLWEV SCSTVSEQL RNSETKNLCL LETAQ atggcctcat cgaccactcg gggcccacag gtttctgact tatttcttg gctgccgccc A gcggtcaca cccccgcaa ccagagcgca gaggcctcgg cgggcaacgg gtcggtggct ggcgcgagc ctccagcgt cagcccttc cagagcctgc agctggtgca tcagctgaag gggctgacg tgcgtctcta cagcgtcgtg gtggtcgtgg ggctgggtgg caactgcctg ctggtgctgg tgatgcgcgc ggtgcgcgcg ctgcacaacg tgacgaact cctcatcgcc aacctggcct tgcgcgcgt gctcatgtgc accgcctgcg tgccgctcac gctggcctat	Homo sapiens

245 3850 G Protein-
Coupled
Receptor 10
(GPR10) NP_004239.1 3850

Homo
sapiens

gccttcgagc cagcgggctg ggtgttcggc ggcgccctgt gccacctggt cttcttctctg
cagccgggtca cgtctatgt gtcggtgttc acgtccacca ccatcgaggt ggaccgctac
gtcgtgctgg tgcacccgct gagcgggcgc atctcgctgc gccctcagcgc ctacgctgtg
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cagcgccagc tctacgctg ggggctgctg ctggtcacct acctgtctcc tctgctggctc
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cgggacctcg accccacgc catcgacct tacgctttg ggtggtgca gctgctctgc
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ggccagaata tgaccgtcag cgtggctcatc tga
GLIVLLYSW VVGLVGNCL LVLVLRVRR LHNVTNFIG NLALSDVLMC TACVPLTLAY
AFEPGRGVFG GGLCHLVFFL QPVTVVVSF TLTTIAVDY VLVHPLRR ISRLSAYAV
LAIWALSAYL ALPAAVHTYH VELKPHDVRL CEEFWGSQER QRQLYAWGLL LVTYLLPLLV
ILLSYVRVSV KLRNRVPGC VTQSQADWDR ARRRTEFCLL VVVVVVFAVC WLPLHVENLL
RDLDPHADIP YAFGLVQLIC HMLAMSSACY NPFIYAWLHD SFREELRKLK VAWPRKIAPH
GQNMVSVVI

246 3851 G Protein-
Coupled
Receptor
GPR12 NM_005288 3851

Homo
sapiens

atgaatgaag acctgaaggt caatttaagc gggctgcctc gggattattt agatgccgct A
gctgcggaga acatctcgcg tctgtctctc tcccgggttc ctgccgtaga gccagagcct
gagctcgtag tcaacccctg ggacattgtc ttgtgtacct cgggaacctt catctctctgt
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tatgctttca gaaaccaaga gatccagaaa gcgctctgct ccatgtgctg cggctgcatc
cgtccagtc tcgcccagag agcgcgctcg cccagtgatg ttag
MNECLKVNL GLPRDYLDAA AENISAASV SRPVAPEPEP ELVNPWDIV LCTSGTLISC P
ENAIIVVLIIF HNPSLRAPMF LLIGSLALAD LLACIGLITN FVFAYLLOSE ATKLVTLGLI
VASFSASVCS LLAITVDRL SLIYALTYHS ERTVTFTYVM LVMLWGTSC LGLLPVWGWN
CLRDESTCSV VRPLTKNAA ILSVSFLFMF ALMLQLYIQI CKIVMRHAHQ IALQHHFLAT

247 3851 G Protein-
Coupled
Receptor
GPR12 NP_005279.1 3851

Homo
sapiens

248	3852	CX3C Chemokine Fractalkine Receptor 1	NM_001337	SHYVTRKGV STLAILGTF AACWMPFTLY SLIADYTPS IYTYATLLPA TYSINPVI YAFRNQEIQK ALCLICGCI PSSLAQRARS PSDV ggggcagatc cagattccct ttgcagtcga cgccaggcct tcaccatgga tcagttccct A gaatcagatga cagaaaaactt tgatgacgat gatttgctg aggcctgtta tattggggac atcgtggtct ttgggactgt gttcctgtcc atatttact ccgtcatctt tgccattggc ctggtgggaa atttgggtt agtgtttgcc ctacacaca gcaagaagcc caagagtgc accgacattt accctcctgaa cctggccttg tctgatctgc tgtttgtagc cactttgcc ttctggactc actatttgat aaatgaaaaa ggcctcaca atgccatgtg caaattcact accgcttctt tcttcacgtg ctttttttga agcatattct tcatcacctg catcagcatt gataggatcc tggccatcgt cctggccgcc aactccatga acaaccggac cgtgcagcat ggcgtcacca tcagcctagg cgtctgggca gcagccattt tgggtggcagc acccagttc atgttcacaa agcagaaaga aaatgaatgc cttggtgact acccagaggt ccttcaggaa atctggcccg tgctcgcga aattttcttg gcttctact cccctgctc attatgagtt attgtactt cagaatcacc cagacgctgt ttctctgcaa gaaccacaa aaagccaaaag ccattaaact gatccttctg gtggtcatcg tgttttctct cttctggaca ccctacaacg ttatgattt cctggagacg cttaaagctct atgacttctt tcccagttgt gacatgagga aggatctgag gctggccctc agtgtgactg agcgggttg c attagccat tgttgccctga atcctctcat ctatgcattt gctggggaga agttcagaag atacccttac cacctgtatg ggaatgcctt ggctgtcctg tgtgggcgt cagtcacagt tgatttctc tcacttgaat cacaaggag caggcatgga agtgttctga gcagcaattt tacttaccac acgagtgatg gagatgcatt gctccttctc tgaagggaat ccaaaagcct tgtgtctaca gagaacctgg agttcctgaa cctgatgctg actagtagg agatttttg ttgttatttc ttacaggcac aaaatgatgg acccaatgca cacaacaaa cctagagtg ttgttagaa ttgtgctcaa aatttgaaga atgaacaaat tgaactcttt gaatgacaaa gagtagacat ttctcttact gcaaatgtca tcagaacttt ttggtttgca gatgacaaa attcaactca gactagtta gttaaatgag ggtggtgaat attgttcata ttgtggcaca agcaaaaag gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVFG TVFLSIFYSV IFAIGLVGNL LWVFALNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPYNVM IFLETCLKYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcaggg agaccactc ccatgttctt tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctggctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcacttgcat gagtgtgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens
249	3852	CX3C Chemokine Fractalkine Receptor 1	NP_001328.1	gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVFG TVFLSIFYSV IFAIGLVGNL LWVFALNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPYNVM IFLETCLKYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcaggg agaccactc ccatgttctt tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctggctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcacttgcat gagtgtgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens
250	3853	G Protein- Coupled Receptor GPR15	NM_005290	gtgtctgagc cctcaaagt aggggaacca gggcctgagc caagcta MDQFESVTE NFEYDDLAE CYIGDIVFG TVFLSIFYSV IFAIGLVGNL LWVFALNSK P KPKSVTDIYL INLALSDLF VATLPFWTHY LINEKGLHNA MCKFTTAFFF IGFFGSIFFI TVISIDRYLA IVLAANSMMN RTVQHGVTS LGWAAAILV AAPQFMFTKQ KENECLGDYP EVLQEIWPVL RNVTNFLGF LLPLIMSYC YFRIQTLES CKNHKKAKAI KLILLVVIVF FLFWTPYNVM IFLETCLKYD FFPSCDMRKD LRLALSVTET VAFSHCCCLNP LIYAFAGEKF RRYLHYLYGK CLAVLCGRSV HVDFSSSESQ RSRHGSVLSS NPTYHTSDGD ALLLL atggaccag agaaacttc agttatttg gattattact atgctacgag cccaaactct A gacatcaggg agaccactc ccatgttctt tacacctctg tcttctctcc agtcttttac acagctgtgt tctgactgg agtgcctggg aacctgttct tcatgggagc gttgcatttc aaacccggca gccgaagact gatcgacatc ttatcatca atctggctgc ctctgacttc atttttcttg tcacattgcc tctctgggtg gataaagaag catctctagg actgtggagg acgggtcctt tctgtgcaa agggagctcc tacatgatct ccgtaaatat gcaactgcagt gtcctcctgc tcacttgcat gagtgtgac cgctacctgg ccattgtgtg gccagtcgta tccaggaaat tcagaaggac agactgtgca tatgtagtct gtgccagcat ctggtttatc	Homo sapiens

Homo
sapiens

P

NP_005281.1

G Protein-
Coupled
Receptor
GPR15

3853

251

taa
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atcttcacct ttttgtccc tttgtgagc attgtgacct gctactgttg cattgcaagg
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aagatcatct ttattgtcgt ggcagccttt ctgtctcct ggtgacctt caatactttc
aagttcctgg ccattgtctc tgggttgagg tggaaccttg gcatctgcca acagctgtgt caaccctttc
cagcttggtg tgagggtgag tggaccttg ctacatccgc cgggccattg tccactgctt gtgaccttgc
attactata tcttcgacag gagtagcact gagacatcag atagtcacct cactaaggct
ctgaaaaact atgactttgg gagtagcact gagacatcag atagtcacct cactaaggct
ctctccacct tcattcatgc agaagatttt gccaggagga ggaagaggtc tgtgtcactc

Homo
sapiens

A

NM_005292

G Protein-
Coupled
Receptor
GPR18

3854

252

gaaagagaca aagcagcaat taaagtccgc ccagcaccac cccgacgcc aagcgttaca
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acactgttc cagaaagagc tattttaaca gaagcaactc aaagatatcc ctccgacaga
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tatcttcata attgattat ttgttaacat cactgcatta tgggttttca gttgtaccac
caagaagaga accacggtaa ccatctatat gatgaatgtg gcattagtgg acttgatat
tataatgact ttacctttc gaatgtttta ttatgcaaaa gatgaatggc catttgga
gtacttctgc cagattcttg gagctctcac agtgttttac ccaagcattg ctttatggct
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acttaaaac acgtgcaag ccgtgctggc gtgtgtgga gtctggataa tgacctgac
cacgaccacc cctctgctac tgctctataa agaccagat aaagactcca ctccgccac
ctgacctcaag attctgaca tcatctatct aaaagctgtg aacgtgctga acctcaactg
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aaggatcatc atcacgctg tggcgaggt gctcgtctgc tttatgacct tccacatctg
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caccttctc atgaacctca gcacgtgtct ggatgtgatt ctctactaca tctttcaaa
acaatttca gctcagatca ttagtgtcat gctataccgt aattaccttc gaagcatgag
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atgaataata aggttcttcc atttcaatcc catcaaaatt cacttacta actactctgg
cgtcaatgga tattctgtat aatactatca agtccctttt ctcttgaana aataaattca
ttatcttcat tttaaaaaaa aaaaaaaa

253	3854	G Protein- Coupled Receptor GPR18	NP_005283.1	NP_005283.1	VPENSSHPDE YKIAALVEYS CIFIIGLFVN ITALWVFSCT TKKRTVTIY P	Homo sapiens
254	3855	G Protein- Coupled Receptor GPR19	NM_006143	NM_006143	<p>MMNVALVDLI FIMTLPFRME YYAKDEWPFQ EYFCQILGAL TVFYPISALW LLAFISADRY</p> <p>MAIVQPKYAK ELKNTCKAVL ACVGVWIMTL TTTTPLLLLY KDPDKSTPA TCLKISDIY</p> <p>LKAVNLNLT RLTFFFLIPL FIMIGCYLVI TTFMLNLSCT LDVILYIVS KQFQARVISV</p> <p>MLYRNYLRSM RRKFSRSGSL RSLSNINSEM L</p> <p>aattaagaga aaaaaagtga atatggtttt tgctcacaga atggataaca gaaagccaca A</p> <p>tttgattatt cctacacttc tggtgcccc cctacacttc agctgcactg aaacagccac</p> <p>acctctgcca agccaatacc tgatgggaat aagtggaggag cacagtttgg tgagcaacca</p> <p>aacagacctt cactatgtgc tgaacccggg ggaagtggcc acagccagca tcttctttgg</p> <p>gattctgtgg ttgttttcta tcttcggcaa tccctgggtt tgtttgggtc tccataggag</p> <p>taggaggact cagttaccca ccttcgcttc tggtgctccc atggcatgtg ctgaccttct</p> <p>catcagcggt gccagcacgc ctttcgtcct gctccagttc accactggaa ggtggacgct</p> <p>gggtagtgca acgtgcaagg ttgtgcgata tttcaatat ctcactccag gtgtccagat</p> <p>ctacgttctc ctctccatct gcatagaccg gtttcacacc atcgtctatc ctctgagctt</p> <p>caaggtgtcc agagaaaaag cctgtgctct tggtggcgga tcgtggatct ttgatgcagg</p> <p>ctttgtgacc cctgtgctct ttttctatgg ctccaactgg gacagtcatt gtaactattt</p> <p>cctccccctc tcttggaag gcactgccta cactgtcatc cacttcttgg tgggttttgt</p> <p>gattccatct gtccctcataa ttttatttta ccaaaaggtc ataaaatata tttgagagaat</p> <p>agggcacagat ggccgaaagg tgaggaggac aatgaaacatt gtccctcgga caaaagtga</p> <p>aactatcaag atgttctcta ttttaaatct gttgattttg ctctcctggc tgccctttca</p> <p>tgtagctcag ctatggcacc cccatgaaca agactataag aaaagttccc tgtttttcac</p> <p>agctatcaca tggataacct ttagtctctc agcctctaaa cctactctgt attcaattta</p> <p>taatggcaat tttcggagag ggatgaaga gactttttgc atgtcctcta tgaatgtta</p> <p>cgaagcaat gcctatacta tcacaacaa ttcaaggatg gccaaaaaaa actacgttgg</p> <p>catttcagaa atcccccca tgcccaaaa tattacaaaa gactcgatct atgactcatt</p> <p>tgacagagaa gccaaaggaa aaaagcttgc ttggccccatt aactcaaatc caccaaatac</p> <p>ttttgtctaa gtttctcatt tttcaattgt tatgcaccag agattaaaaa gctttaacta</p> <p>taaaaacaga agctatttac atatttgttt tcaactcaat ttccaaagga aatgttttat</p> <p>tttgtaaaaat gcattcattt gtttactgt</p>	Homo sapiens
255	3855	G Protein- Coupled Receptor GPR19	NP_006134.1	NP_006134.1	<p>MVFAHRMDNS KPHLIIPPLL VPLQNRSCTE TATPLPSQYL MELSEHSWM SNQTDLHYVL P</p> <p>KPGEVATASI FFGILWLFSI FGNSLVCLVI HRSRRQTST NYFVVSMACT DLLISVASTP</p> <p>FVLLQFTTGR WTLGSATCKV VRYFQYLTPG VQIYVLLSIC IDRFYTIYVP LSFKVSREKA</p> <p>KFMIAASWIF DAGFTVPVLF FYGSNWDSHC NYFLPSSWEG TAYTVIHFLV GFVIPSVLII</p> <p>LFYQKVIKYI WRIGTDGRTV RRTMNIVPRT KVKTIKMFLI LNLLFLSWL PFHVAQLWHP</p> <p>HEQDYKKSSL VFTAITWISF SSSASKPTLY SIYNANFRRG MKETFCMSSM KCYRSNAYTI</p> <p>TTSSRMMAKN YVGISEIPSM AKTITKDSIY DSFDREAKEK KLAWPINSNP PNTFV</p>	Homo sapiens
256	3856	G Protein- Coupled Receptor GPR2/CCR10	NM_016602	NM_016602	<p>agagatgggg acggaggcca cagagcaggt ttcctggggc cattactctg gggatgaaga A</p> <p>ggacgcatac tcggctgagc cactgcccga gctttgctac aagggccgatg tccaggcctt</p> <p>cagccgggcc ttccaaacca gtgtctcctt gacctgggtc gcgtgggtc tggccggcaa</p> <p>tggcctggtc ctggccaccc acctggcagc ccgacgcgca gcgcgtctgc ccacctctgc</p>	Homo sapiens

257	3856	G Protein- Coupled Receptor GPR2/CCR10	NP_057686.1	<p>ccactgtctc cagctggccc tggcggacct cttgtggcc ctgactgtgc ctttcgcggc</p> <p>agcaggggct cttcagggt gtagctctgg aagtgcacc tgcgcacca tctctggcct</p> <p>ctactcgccc tcttccacg ccggttctct cttcctggcc tgtatcagc ccgaccgcta</p> <p>cgtggccatc gcgcagcgc tcccagcgg gccgcggccc tccactcccg gccgcgcaca</p> <p>cttgggtctc gtcactgtg ggtgctgtc actgctctg gcgtgcctg cgtgtctctt</p> <p>cagccaggat gggcagcgg aagcccaac acgtgtgc ctcatttcc ccgagggcct</p> <p>cacgcagacg gtgaaggggg cagcggccgt ggcgcagggt gccctgggt tgcgctgccc</p> <p>gctgggcgtc atggtagcct gctacgcgt tctggccgc acgtgtctg ccgccagggg</p> <p>gcccgagcgc cggcgtgcgc tgcgctgct cctgtgtgt ggtggcgtg tctgtgtgt</p> <p>gcagctgccc tacagcctcg cctgtgtgt ggtactgccc gatctactg ctgcgcgca</p> <p>gcggagctgc cctgccagca aacgcaagga tgtcgcacty ctggtgacca gcggttggc</p> <p>cctcggccgc tgtggcctca atccgttct ttagccttc ctggcctgc gttcccgcca</p> <p>ggacctgcgg aggtgtctac ggggtgggag ctgcacctca gggcctcaac ccgcgcgcgg</p> <p>ctgccccgc cggccccgc tttcttctg ctacgtctcc acggagacc acagtctctc</p> <p>ctgggacaaac taggctgcg aatctagagg agggggcagg ctgagggtcg tgggaaagg</p> <p>gagtaggtgg gggaacacty agaaagagg agggacctaa agggactacc tctgtgcctt</p> <p>gccacattaa attgataaca tggaaatgaa aaaaaaaa aaaa</p> <p>LVLAHLAAR RAARSPTSAH LLQLALADLL CYKADVQAFS RAFQPSVSLT VAALGLAGNG P</p> <p>SASFHAGFLF LACISADRYV AIARALPAGP RPSTPGRAHL VSVIVWLLSL LIALPALIFS</p> <p>QDQREGQRR CRLIFPEGLT QTVKGASAVA QVALGFALPL GVMVACYALL GRTLLAARGP</p> <p>ERRRALRVV ALVAFFVLQ LPYSLALLD TADLLAARER SCPASKRKDV ALLVTSGLAL</p> <p>ARCGLNPLY AFLGLRFRQD LRLLRGSS PSQPQRRGC PRRPRLSSCS APTETHSLSW</p> <p>DN</p>	Homo sapiens
258	3857	G Protein- Coupled Receptor GPR20	NM_005293	<p>atgcctctgt tgtctccagc ggggcccctg gccggggcag tccccaatgc caccgactg A</p> <p>acaacagtgc ggaccaatgc cagcgggctg gaggtgccc tgttccacct gtttcccgg</p> <p>ctggacgagg agctgcatg cacttccca ggcctgtgcy tggcgtgat ggcgtgcaac</p> <p>ggagccatct tctggcagg gctggtgctc aacgggctgg cgtgtacgt cttctgtgc</p> <p>cgcacccggg ccaagacacc ctacgtcatc tacaccatca acctggtgt gaccgatcta</p> <p>ctggtagggc tgtccctgcc cagcgcctc gctgtgtact acggcgccag gggctgcctg</p> <p>cgtgtgctt tcccgcact cctcgggtac ttcctcaaca tgcactgtc catctcttc</p> <p>ctcacctgca tctgcgtgga ccgctacctg gccatctgcy ggcgcgaagc tcccgcgcgc</p> <p>tgcgcgcagc ctgcctgtgc caggccctg tgcgccttcg tgtgctgcy cgcggtgccc</p> <p>gtcacctgt cgggtgctgg cgtgacagc agccggccct gttgcctgt ctttgcctg</p> <p>actgtcctg agttcctgct gcccctgctg gtcatcagcy tgtttaccg ccgcatcatg</p> <p>tgtgcactgt cgcggccggg tctgctccac cagggtgccc agcgcgcgt gcgggcccag</p> <p>cagctcctgc tcacggtgt catcatcttt cctgtctgt tcacgccct ccacgcgcgc</p> <p>caagtggccg tggcgtgtg gcccgacatg ccacaccaca cgagcctcgt ggtctaccac</p> <p>gtggccgtga cctcagcag cctcaacagc tgcattggacc ccatcgtcta ctgcttctc</p> <p>accagtggct tccaggccac cgtccgagc cttctcgccc agcacggaga gctgagccc</p> <p>agcagcgggt acgtggtcag catgcacagg agctccaaag gctcaggccc tcatcacatc</p>	Homo sapiens

[illegible]

263	3859	G Protein- Coupled Receptor GPR22	NP_005286.1	<p> tttttcagtc ttcaaaagtgg aaatacctgg gaaaaacaaga cacttttatg tgtcagtaga aatgaatact acatgaact gggaatgtat tatcacctgt tatcacctgt cccaatattc tttttcactg ttgtagtaat gttaatcaca tacaccaaaa tacttcaggc tcttaatat cgaataggca caagattttc aacagggcag aagaagaaag gcagtggtag gagaaatgta tcttaacca cacaacatga ggctacagac atgtcacaaa tccggcgagc tgtgaaacga gtccttggtg taagaacttc agttctgtga ataattgccc tccggcgagc tgtgaaacga caccgtgaac gacgagaaag acaaaagaga gtcttcagga tgtctttatt gattatttct acatttcttc tctgctggac accaatttct gttttaataa ccaccatttt atgtttaggc ccaagtgaac ttttagtaaa attaagattg tgttttttag tcatggccta tggaaacaact atatttcacc ctctattata tgcattcact agacaaaaat ttcaaaaagg cttgaaaaagt aaaaatgaaa agcgagttgt ttctatagta gaagctgac ccctgcctaa taatgctgta atacacaact cttggataga tcccaaaaga acaaaaaaaa ttaccttga agatagtga ataagagaaa aacgtttagt gcctcaggt gtacacagact ag MCFSP1EIN MQSESNITVR DDIDDINTNM YQPLSYPLSF QVSLTGFLML EIVLGLSNL P TVLVLYCMKS NLINSVSNII TMNLHVLVDVI ICVGCIPLTI VILLLSLESN TALICCFHEA CVSFASVSTA INVFAITLDR YDISVKPANR ILTMGRAVML MISIWIFSEF SFLIPFIEVN FFSLOSNTW ENKTLICVST NEYTELGMY YHLLVQIPIF FTTVVMLIT YTKILQALNI RIGTRFSTGQ KKKARKKTI SLTQHEATD MSQSSGGRNV VFGVRTSVSV IIALRRVAKR HRERERQKR VFRMSLLIIS TFLLCWTPIS VLNTILCLG PSDLLVKLRL CFLVMAYGTT IFHPLLYAFT RQKFQKVLKS KMKKRVVSIV EADPLPNNAV IHNSWIDPKR NKKITFEDSE IREKRLVPQV VTD </p>	Homo sapiens
-264	3860	G Protein- Coupled Receptor SLC/MCH1	NM_005297	<p> atgttgtgtc cttccaagac agatggctca gggcactctg gtaggattca ccaggaaact A catggagaag ggaagaaggga caagattagc aacagtgaag ggaggagaga tggtaggaga ggattccaga tgaacggtgg gtcgctggag gctgagcatg ccagcaggat gtcagttctc agagcaaaagc ccatgtcaaa cagccaacgc ttgctccttc tgtccccagg atcacctcct cgcacgggga gcatctccta catcaacatc atcatgcctt cgggtgttcg caccatctgc ctctctggga tcatcggga ctcacacggtc atcttcgagg tctgtaagaa gtccaagctg cactggtgca acaacgtccc cgacatcttc atcatcaacc tctcggtagt agatctctc tttctcctgg gcatgcccct catgatccac cagctcatgg gcaatggggt gtggcacttt gggagagaca tglgcacct catcacggcc atggatgcca atagtcagtt caccagcacc tacatcctga ccgccatggc cattgaccgc tacctggcca ctgtccacc cactctctcc acgaagtcc ggaagccctc tgtggccacc ctggtgatct gcctcctgtg ggccctctcc ttcatacaga tcacccctgt gtggctgtat gccagactca tcccctccc aggaggtgca gtggctgctg gcatacgctt gcccaccca gacactgacc tctactggtt caccctgtac cagtttttcc tggcctttgc cctgcctttt gtggtcata cagccgcata cgtgagatc ctgcagcgca tgacgtcttc agtggccccc gctcccacgc gcagcatccg cgtgcggaca aagaggggtga cccgcacagc catgccatc tgtctggtct tctttgtgtg ctgggcaccc tactatgtgc tacagctgac ccagttgtcc atcagccgcc cgacctcac ctttgtctac ttatacaatg cggccatcag cttgggctat gccacagct gcctcaacc ctttgtgtac atcgtgctct gtgagacgtt ccgcaaacgc ttggtcctgt cgggtgaagcc tgcagccag gggcagcttc gcgctgtcag caacgctcag acggtgacg aggagaggac agaaagcaaa </p>	Homo sapiens

[illegible]

269	3862	G Protein- Coupled Receptor GPR3	NP_005272.1	<p>gacctcacct actattcaga gacaacagtg acacggacct atgtgatgct ggccttagtg tggggaggtg cctgtggcct ggggtgctg ttatccact tccaagaacc ccttgtagt cctggatggc ctgaacacat gtggcggtgt ttatccact tccaagaacc ccttgtagt cctggatggc gccttcttca tgggtgttgg catcatgtg tgcccttcag cggcacctgc tgcctgctc cgcattgtg tgccggccatg ccagcagat ggccttcag cggcacctgc tgcctgctc cgcattgtg gcaacccgca agggcattg cacttgcc cctgtgggt gatgccact ctccacctat ctacacctat ttgcccttca ctgtctactg cctgtgggt gatgccact ctccacctat ctacacctat cttaacctgc tccctggccac ctacaaactc atgatcaaac ctatcatcta cgccttccgc aaccaggatg tgcagaaagt gctgtgggt gctgtgctg gctgttctc ttccaagatc ccctccgat cccgctccc cagtgtgct tag</p> <p>MMWGAGSPLA WLSAGSGNVN VSSVGPAGP TGPAAPLPSP KAWDVVLCIS GTLVSCENAL P VVAIIIVGTPA FRAPMFLV LGSLVHFAAV FCIGSAEMSL VLVGVLAFAF TASIGSLAI TVDRYLSLYN ALTYSETTV TRTYVMLALV WGGALGLGLL PVLAWNCLDG LTTCGVVYPL SKNHLVLA I AFFMVFGLM QLYAQICRIV CRHAQQIALQ RHLPLASHYV ATRKGIATLA VVLGAFAACW LPFTVYCLLG DAHSPLYTY LTLTPATYNS MINPIIYAFR NQDVQKVLWA VCCCSSSKI PFRSRSPSDV</p>	Homo sapiens
270	3863	G Protein- Coupled Receptor GPR31	NM_005299	<p>atgccattcc caaactgctc agccccagc actgtgtgtg ccacagctgt ggggtgtgtg A ctggggctgg agtgtgggt ggtgtgctg ggcaacgctg tggcgctgtg gaccttctg ttccgggtca ggggtgtgaa gccgtacgtg gtctacctgc tcaacctggc cctggctgac ctgctgttgg ctgctgctc gcttctctg gccgcttct acctgacct ccaggcttgg catctggcc gtgtgggtg ctgggcccc gcttctctg tggacctcag ccgcaggtg gggatggct tctggccc cgtggcttgg gaccgtacc tccgtgtgtt ccacctcgg cttaaggctc acctgctgt tctcaggc gcttgggtg tctcggcct cgttggctc ctgatgtgtg cctcactgt ccgggctgt cctatctgt agccgcccc gaactccacc agtgccaca gtttctact caggcgagac ggtctcttca gcatcatctg gcaggaagca ctctcctgc ttcagttgt cctccccctt gccctcatog tgttctgcaa tgcaggcatc atcagggtc tccagaaaag actccgggag cctgagaaac agcccaagct tcagcgggcc caggcactgg tcacctgtgt ggtgtgtgtg ttgtctctgt gcttctgtc ctgcttctg gccagagtcc tgatgcacat ctccagaaat ctggggagct gcagggccct ttgtgcagtg gctcatact cggatgtcac gggcagcctc acctacctgc acagtgtgt caacccgtg gtatactgt tctccagccc cacttcagg agctcctatc ggagggtctt ccacacctc cgaggcaaa ggcaggcagc agagccccca gatttcaacc ccagagactc ctattctga MPFPNCAPS TVVATAGVL LGLECGGLL GNAVALWTFEL FRVRVWKPYA VYLLNLALAD P LLLAACLPEL AAFYLSLQAW HLGRVGCWAL RFLDLRSRV GMAFLAAVAL DRYLRVVR LKNLLSPQA ALGVSGLVWL LMVALTCPGL LISEAAQNST RCHSFYSRAD GFSFIWQEA LSCLOFLPF GLVFCNAGI IRALQKRLRE PEKOPKQRA QALVTLVVL FALCFPLCEL ARVLMHIFQN IGSCRALCAV AHTSDVTGSL TYLHVVNPV VYCFSSPTFR SSYRRVFHTL RGKGAAEPP DFNPRDSYS</p>	Homo sapiens
271	3863	G Protein- Coupled Receptor GPR31	NP_005290.1	<p>cgaggcaaa ggcaggcagc agagccccca gatttcaacc ccagagactc ctattctga MPFPNCAPS TVVATAGVL LGLECGGLL GNAVALWTFEL FRVRVWKPYA VYLLNLALAD P LLLAACLPEL AAFYLSLQAW HLGRVGCWAL RFLDLRSRV GMAFLAAVAL DRYLRVVR LKNLLSPQA ALGVSGLVWL LMVALTCPGL LISEAAQNST RCHSFYSRAD GFSFIWQEA LSCLOFLPF GLVFCNAGI IRALQKRLRE PEKOPKQRA QALVTLVVL FALCFPLCEL ARVLMHIFQN IGSCRALCAV AHTSDVTGSL TYLHVVNPV VYCFSSPTFR SSYRRVFHTL RGKGAAEPP DFNPRDSYS</p>	Homo sapiens
272	3864	G Protein- Coupled Receptor	NM_005282	<p>ctggtagacct tacttatctc tgttgcttcc tggggctccta ggaaatgcca gcactccac A ccacattgcc tgaacttcc aacactccct agctgcgtg tgcctatct caacactcc tcattgtatt cttgtgtctt ctagaacatt ccccgccat tattacttca atatggctac</p>	Homo sapiens

GPR4

acatacttcc taattggcct gaaaccatc tccttctcac cattgccag cgatgttcc
 gtctctcca taaactcc cggagacca tttttgtgc accccatcac tccctgttg
 acacactgac tccatacata acctcttga aaacctctt tattaatctc accatctcc
 agacttccct cctgtcataa tccatccct tcccaactt tccctctca agctctgcc
 ttccacgcc agccagcct accaaacct atctctccc tgtagaccac atcccacat
 gtctccctga gctccaagg aagggtctca gggggcccca tggcctccc ctcctgttg
 cccacagcc cccgtgggc cactgggact cgcgtgga ccactcttt ccgcatccc
 accacagtg ggagggtgc tgcatctgc tggaccgta cctggctgtg tggcgccct
 tctacatctt tgcacggc gtagagctg cgcgtacct gatgaacctc agcatcgcc
 accgcaagt gaaacagc aacagctgg ggtctacct ggtggacta ctcctgcac cagacaact
 acctgctga catctgacg ctgcgctgt ggtggacta ttgggttcat cttctacac aatatctaca
 ggtaccacg ccccggtcc tgcaagctct tggaccgta tgggctgtg gccacccc
 tcagcatcg cttcctgtgc tgcatctgc tggaccgta cctggctgtg gccacccc
 tccgcttcg cgcctgcg cgcgtcaaga cgcctgtgc cgtgagctcc gtggtctgg
 ccacggagct gggcgcaac tggcgcccc tgttccatga cgaactcttc cgagaccgt
 acaaccacac cttctgctt gagagttcc ccatggaaag ctgggtggcc tggatgaacc
 tctatcggt gtctgtggc ttcctctcc cgtggcgct catgtgtg tctgtaccgg
 gcatcctgc ggcgtgcg ggcagctgt ccaccgagc caggagaaag gccaatgaca
 agcggctggc ctcagctc atgcctatg tctgtgtctg ctttgcgcc tatcacgtg
 tctgtgtgc ccgagcgcc atctacctg gccgccccg ggaactgcgc ttcgaggagc
 ggtcttttc tgcataccac agtcaactg ctttaccag cctcaactgt gtggcggacc
 ccatactcta ctgctgtgc aacgagggcg cccgagcga tgtggcgaag gccctgcaca
 acctgctcc cttctgtgc agcacaagc cccaggagat ggccaatgccc tgcctacccc
 tggagacccc actcacctcc aagaggaaca gcacagcaa agccatgact ggcagctggg
 cggccactcc gccctccag ggggaccagg tgcagctgaa gatgtgcg ccagcacaat
 gaacccagag tggcacagaa tcccagttt tcccctctca tcccacagtc ccttctctcc
 tggctgtgtg tatgcaaat gtatgaaaa agggctgtgt taatattcat aagaatacaa
 gaacttagga agagtgggt tgggtgttca ctggtcaacc tttgtgctcc cagatccccat
 cacagtttg cgaattgtga gggcctctctg aaggaggaga tgagtaataa ttttttttg
 gagacaggggt ctactgtgt tgcacaggt ggaagtgcagt agtgcagtcg tggctcactg
 cagcctccac ctctgggt ctccagcgt ctcccacat cagcctccc agtagctggg
 accacaaatg tgagccacc catgctggc taattttgt actttttgta taaatggagt
 ctactatgt ttcccaggc tgatcttgaa ctctgggct caagagatcc tctgctctg
 gcctcccaaa gtgctcagat tagagatgt agccgcatg tctggccaga taaatgaagt
 caaacattg gttccagaa aataagaca aatagagaag gttagatttt ttttttcca
 acaagtggat aaaagtctgt gactcggggg aaagtgaag gagaaatgca gccgatatag
 agtcattatg ttgcaaacg ccctggtcat acagggcagg gaacataaga ccgcaattct
 aagtttctag ataaacagc atctccaagt caagactgag gatgaagagg gagaatgtca
 gaactcaagt gaagggaat cagggcagac tgcctggagg agtgcagcca gaaggtttgg
 gaagaagggt tgggacaaga agaaagggt tttattcatt cattcaacag aggtttatgt
 aggcactgt gctgggtggg gctgggggaca caacaatgac tgaggcagcc tggccttggc

273	3864	G Protein- Coupled Receptor GPR4	NP_005273.1	ttcacaggcg tcaccatata caagtaata aaaaatatg aatgtttgga attgct MGNHTWEGCH VDSRVDHLFP PSLYIFVIGV GLPTNCLALW AAYRQVQORN ELGVYLMNLS P IADLLYICTL PLKVDYFLHH DNWIHGPSC KLFGFIFYTN IYISIAFLCC ISVDRLAVA HPLRFARLR VMTAVAVSSV VWATELGANS APLFHDLEFR DRYNHTFCFE KPFMEGWAV MNLRYFVGF LFPWALMLLS YRGILRAVRG SVSTERQEK KIKRLALSIL AIVLVCFAPY HVLILRSAL YLGRPWDCGF EERVFSAYHS SLAFTSLNCV ADPILYCLVN EGARSDVAKA LHNLRLFLAS DKPQEMANAS LTLETPLTSK RNSTAKAMTG SWAATPPSQG DQVQLKMLPP AQ	Homo sapiens
274	3866	G Protein- Coupled Receptor GPR6	NM_005284	atgaacgcga gcgcgcctc gctcaacgac tcccagggtg tggtagtggc ggccgaagga A gcggcgccgg cggccacagc agcagggggg cggacacgg gcgaatgggg accccctgct gcggcgccctc taggagccgg cggcgagctc aatgggtctc tggagctgtc ctgcagctg tcggctgggc caccgggact cctgtgcca cgggtgaatc cgtgggacgt gctcctgtgc gtgtcgggga cagtgatgc tggagaaac gcgtgggtg tggcgctcat cgcgtccact ccggcgctgc gcacgcccc gtctgtgctg gttagcagcc tggccaccgc tgacctgttg gcgggctgtg gctcatctt gcactttgtg ttccagtact tgggtccctc ggagactgtg agtctgctca cggtgggctt cctcgtggcc tccctgcgc cctctgtcag cagcctgctg gccattacgg tggaccgcta cctgtccctg tataacgcgc tcacctatta ctgcgcggg accctgttgg gcgtgcacct cctgcttgc gccacttgg cctgttccct aggcctgggg ctgtgccccg tgctgggctg gaactgctg gcagagcgc cgcctgcag cgtgggtgcg ccgtgggcgc gcagccacgt ggctctgtc tccgcgcctc tcttcattgt ctcgggcac atgtgcacc tgtactgtg catctgcag gtggtctgg gccacgcga ccagatcgcg ctgcagcagc actgcctgg gccacccat ctgcctgcca ccagaaagg tgtgggtaca ctggctgtgg tgctgggac ttctgggccc agctggctgc ccttcgccat ctattgctg gtgggcagcc atgaggacc gcggtgtac acttacgcca cctgctgcc cgcacccac aactccatga tcaatcccat catctatgcc tccgcaacc aggagatcca gcgcgccctg tggctcctgc tctgtggctg ttccagttcc aaagtgcctc ttcgttccag gtctccagc gaggtctga	Homo sapiens
275	3866	G Protein- Coupled Receptor GPR6	NP_005275.1	SQVWVAAG AAAATAAG PDTGEWPPA AAALGAGGA NGSLELSSQL P SAGPPGILLP AVNPWDVLLC VSGTVIAGEN ALVVALIAST PALRTPMFVL VGSLATADLL AGGLIHVF FYLVPSFV SLLTVGLVA SFAASVSSLL AITVDRLSL YNALTYSSRR TLGGVHLLA ATWTVSLGLG LLPVLGNCL AERAACSVVR PLARSHVALL SAAFFWVFGI MLHLYVRICQ VWRHAHQIA LQCHCLAPPH LAATRKGVGT LAVVLGTFGA SWLPFAIYCV VGSHEDEAVY TYATLLPATY NSMINPIYA FRNQEIQRAL WLLLCGCFQS KVPFRSRSPS EV	Homo sapiens
276	3867	G Protein- Coupled Receptor GPR7	NM_005285	atggacaacg cctcgttctc ggagccctgg cccgccaacg catcggggcc ggaccggcg A ctgagctgct ccaacgcgtc gactctggcg ccgctgccgg cgcctgtggc ggtggctgta ccagttgct acgcggtgat ctgcgccgtg ggtctggcg gcaactcgc cgtgctgtac gtgtgtgtgc gggcgcccc catgaagacc gtcaccaacc tgttcatcct caacctggcc atgcgcgacg agctcttca cgtggtgctg cccatcaaca tcgccgactt cctgctggg cagtgccctc tcggggagct catgtgcaag ctcatcgtgg ctatcgacca gtacaacacc	Homo sapiens

Homo
sapiens

P

NP_005276.1

G Protein-
Coupled
Receptor
GPR7

3867

277

ttctccagcc tctacttctt caccgtcatg agcgccgacc gctacctggt ggtgttggtg
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 ctgataactt gccgcgcgc agcctga

PLPAPLAVAV PWYAVICAV GLAGNSAVLY
 LSCSNASTLA PINIADEFLR QWPFGEIMCK LIVAIQYNT
 IADELFTLVL TYSAAARVSL AWGIVTLVW LPFAVFARLD
 TAESRRVAGR GFAIPVSTIC VLYTLLCRL HAMRLDSHAK
 RASRLYTLVL TVVALTTDLP QTPLVIAISY FITSLTYANS
 LITCRAAA

Homo
sapiens

A

NM_005286

G Protein-
Coupled
Receptor
GPR8

3868

278

atgcaggccg ctgggcacc agagccctt gacagcagg gctccttctt cctccccacg
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 gacaacttc ggaagaactt ccgcagcata ttgctgtgct ga
 TGNATFSEP LGFLYVLLPA VYSGICAVGL
 DGLFTILVLP NIAEHLQYW PFGEILCKIV
 RSRHNPWRTY RGAKVASLCV WLGTVLVLP
 ASRVYTLVIG FVLVCTICV LYTDLLRLR
 LCVTPHLS VVALTTDLPQ TPLVISMSYV
 LCNFKNFRSI LRC

Homo
sapiens

P

NP_005277.1

G Protein-
Coupled
Receptor
GPR8

3868

279

280	3869	G Protein- Coupled Receptor HM74	NM_006018	cgccacttgg ctggagcatt cactaggcga ggcgtccat cggactcact agccgcactc A atgaatcggc accatctgca ggcactcttt ctgaaatag acaagaagaa ctgctgtgtg ttccgagatg acttcattgc caagtggttg ccgcccgtgt tgggctgga gtttatcttt gggcttctgg gcaatggcct tgcctgtgg attttctgt tccacctcaa gtccctggaaa tccagccgga ttttctgtt caactggca gtagctgact ttctactgat catctgcctg ccgttcgtga tggactacta tgtgcgctg tgcagctgga actttggga catcccttgc cggctggtgc tcttcattgt tgcctatgac cgcagggca gcatcatctt cctcacggtg gtggcggtag acaggtattt ccggttggtc catcccccac cgccttgaa caagatctcc aattggacag cagccatcat ccttgcctt ctgtgggga tcaactgttg cctaacagtc cacctcctga agaagaagt gctgaccag aatggcctg caaatgtgtg catcagcttc agcatctgcc ataccttcg gtggcagaa gctatgttc tcttgaggtt cctcctgccc ctgggcatca tctgttctg ctacgacga attatctga gcctgcgga gagacaaatg gaccggcatg ccaagatcaa gagagccatc acctcatca tgggtgtggc catcgtcttt gtcatctgct tcttcccg cgtgtgtgt cggatccgca tcttctggtt cctgcacact tcgggcacgc agaattgtga agtgcacgc tcggtggacc tggcgttctt tatcactctc agcttcacct acatgaacag catgctggac cccgtggtg actacttctc cagcccatcc tttcccaact tcttctccac ttgatcaac cgctgcctcc agaggagat gacaggtgag ccagataata accgagcac gagctcgag ctacacaggg accccaaca aaccagaggc gtccagagg cgttaatggc caactccgtt gagccatgga gccctctta tctgggcccc acctcaata accttccaa gaaggacat tgtcaccaag aaccagcatc tctggagaaa cagttgggct gtgcatcga gtaattgac taggactcgc ctaaggtttc ctggaacttc cagattcaga gaatctgatt taggaaaact gtggcagatg agtgggagac tgggtgcaag gttgaccac aggaatcctg gaggaacaga gactaaagt tctaggcatc tgaacttgc ttcatctctg acgctcgag gactgaagt gggcaaatg taggcgttct tgcagagcag agttggagcc agagatctac ttgtacttg ttggccttct tcccacatct gccctcagact gggggggct cagctcctcg ggtgatctc agcctgcttg tgagctctag cagggataag gagagctgag attggagga attgtgttc tctggagga agcccaggca tcattaaca agccagtagg tcacctggtt tccgtggacc aattcatctt tcagacaagc tttagagaaa tggactcagg gaagagactc acatgctttg gtagtatct gtgttccgg tgggtgtaat aggggattag cccagaagg gactgagta aacagtgtta ttatgggaaa ggaatggca ttgctgctt caaccagca ctaatgcaat ccattcctct cttgtttata gtaatctaag ggttgagcag ttaaacggc ttcaggatag aaagctgttt cccacctgtt tccgtttacc attaaaagg aaacgtgct ctgccccacg ggtagagggg gtgcacgttc ctcctggttc cttcgctgtt gttctgtac ttacaaaaa tctaccactt caataaattt tgataggaga caaaaaaaa a	Homo sapiens
281	3869	G Protein- Coupled Receptor HM74	NP_006009.1	MNRHLLQDHF LEIDKKNCCV FRDDFIKVL PPVLGLEFF GLLGNGLALW IFCHLKSWK P SSRIFLEFLNLA VADFLLIICL PFVMDYYVRR SDWNFGDIPC RLVLFEFAMN RQGSIFLTV VAVDRYFRVW HPHALNKIS NWTAIIISCL LWGITVGLTV HLLKKLLIQ NGPANVCISF SICHTFRWHE AMFLLEFLP LGIILFCSAR IWSLRQRQM DRHAKIKRAI TFMVVAIVE VICFLESVV RIRIFWLLHT SGTQNCVYR SVDLAFITL SFTYNSMLD PVVYFSSPS FPNFFSTLIN RCLQRKMTGE PDNNRSTSV I TGDPNKTRG APEALMANSG EPWSPSYLGP	Homo sapiens

282	3870	G Protein-Coupled Receptor OGR1	NM_003485	TSNNHKKKGH CHQEPASLEK QLGCCIE	atggggaaaca tcaactgcaga caactcctcg atgagctgta ccacgacca taccatccac A cagacgctgg ccccggtggt ctatgttacc gtgctggtgg tgggcttccc ggccaactgc ctgtccctct acttcggcta cctgcagatc aagggccgga acgagctggg cgtgtacctg tgcaacctga cggtagccga cctcttctac atctgctcgc tggccttctg gctgcagtag gtgctgcagc acgacaactg gtctcacggc gacctgtcct gcaatctcgt ggaccgctac ctgtacgaga-acatctacat cagcgtgggc ttctctgctt gcatctcgtt ggcgctcgcc ctggctgtgg cccatccctt cggcttccac cagttccgga cctgaaggc ggcgctcgcc gtcagcgtgg tcatctgggc caaggagctg ctgaccagca tctacttctt gatgcacgag gaggtcatcg aggcagagaa ccagcacgcg gtgtgctttg agcaataccc catccaggca tggcagcgcg ccatcaacta ctaccgcttc ctggtgggct tctcttccc catctgcctg ctgtggcgt cctaccaggg catcctgcgc gccgtgcgc ggagccacgg caccagaag agccgcaagg accagatcca gcggtggtg ctcagcacg tggatcatct cctggcctgc ttctgcctt accacgtgtt gctgctggtg cgcagcgtct gggagggcag ctgcgacttc gccaaaggcg ttttcaacg ctaccacttc tccctcctgc tcaccagctt caactgcgtc gccgaccccg tgcctactg cttcgtcagc gagaccacc accgggacct ggcgcgctc cgcggggcct gccctggcct cctcacctgc tccaggaccg gccggggcag ggagggcctac ccgctgggtg ccccgaggc ctcgggaaa agcggggccc aggtgagga gccgagctg ttgaccaagc tccaccggc cttccagacc cctaactcgc cagggtcggg cgggttcccc acgggcaggt tggcctag	Homo sapiens
283	3870	G Protein-Coupled Receptor OGR1	NP_003476.1	MGNITADNSS MSCTIDHTIH QTLAPVVYVT VLVGFPPANC LSLYFGLQI KARNELGVYL P CNLTVDLFY ICSLPFWLQY VLQDNWSHG DLSCQVCGIL LYENIYISVG FLCISVDRI LAVAHPRFH QFRTLKAAG VSVVIWAKEL LSIYFLMHE EVIEDENQHR VCFEHPYIQ WQRAINYYRF LVGFLFPICL LLASYQGILR AVRRSHGTQK SRKDQIQRLV LSTVVFILAC FLPYHVILLV RSVWEASCFE AKGVFNAYHF SLLTTSFNCV ADPVLVCFVS ETTHRDLARL RGACLAFLTC SRTGRAREAY PLGAPEASGK SGAQGEPEL LTKLHPAFQT PNSPGSGGFP TGRLA	Homo sapiens	
284	3921	Prostacyclin Receptor	NM_000960	agcaagtga ggcacagacg cagggacag gagagcctgg gcaagactgg agagcccaga A cctgggatgg cggattcgtg caggaacctc acctacgtgc ggggctcgtt ggggcccggc accagcacc tgatgttcgt ggcgggtgtg gtgggcaacg ggctggccct gggcatcctg agcgacggc gaccggcgcg cccctggcc ttccggtgtc tggtaacgg actggcgcc accgacctgc tgggcaccag cttcctgagc cgggcccgtt tctgtggccta tgcgcgcaac agctccctgc tgggcccggc cagaggcgc cccgcccctt gcgatgcctt cgccttcgcc atgaccttct tgggcccggc gtccatgctc atctctttt gcatggcctt ggagcgtgc ctggcgctga gccacccta cctctacgag cagctggagc ggcgccgctg cgcgccctg gcgctgccag ccatctacgc cttctgcgtc cgtcttctgc cgtgcctt cctggggcctg ggccaacacc agcagtactg ccccgagcgc tgggtcttcc tccgcatgag cttggggcctg ccggggcgcg ccgcttctc gctggcctac gccggcctgg tggcctgct ggtgggctgcc atcttctctt gcaacggctc ggtcacctc agcctctgcc gcatgtaccg ccagcagaag cgccaccagg gctctctggg tccacggcg cgcaccggag aggcagaggt ggaccacctg	Homo sapiens	

285	3921	Prostacyclin NP_000951.1 Receptor	atcctgtg cccatgac agtggtcatg gccgtgtgct cctgcctct cagcatccgc tgcttacc aggtgtgc cctgacagc agcagtgaga tggggaccc ccttgccctc cgcttctacg ccttaacc cctctggac cctggtgtc tcatcctttt ccgcaaggtc gtcttccagc gactcaagct ctgggtctgc tgcctgtgcc tcgggctgc ccacggagac tcgagacac ccttttccca gctgcctcc gggaggagg acccaaggcc cccctctgct cctgtgggaa aggggggag ctgctgtcct ttgtcgctt gggcgagg gagggtggag cccttgctc ccacacagca gtcagcggc agcgccgtg gacgtcgtc caaagcagaa gccagcgtc cctgtcctc ctgctgacat ttcaagctga cctgtgatc tctgcctgt cttcgggcga caggagccc aaaaacagg acatggctga tggctgcgga tgctggaacc ttggccccc aactctggg ccgacagct gctgtttctc ctgcgccagg gcagtcgctg ctggctctgg gaagagagt agggacagag gaaacgttta tccctgagt cagaaagaat ggttctctca aataaaccag tggcctggcc gacctgtct ggcctggat tccccatcca ttcattgtc taaatattta gaaggcgag agttctcct aggttctgt acagtcaggt ctgctctggt ctgggtgtg gctccaatct gcgtccact agggagccca actgcccccc ccaagtccc aggggatgg cctccccctc taccagcca ctccaaagc cagccccctt tctgtccac aaaaaccaca gttattggaa agctccctg ccttccctg ccgctggctc cccaccagg ttgggagccc tggcatccca agggggaac gggaggagg ggaggtgct gcattgtgg tgatgacgta ggacatgtgc ttggtacaaa agggcctga gacattccac ct	Homo sapiens
286	3923	Prostaglandin D2 Receptor	gctgtgcaac ctgcggccca tgcgcaacct ctatgcatg caccggcggc tgcagcggca cccgctcc tgcaccagg actgtgcga gccgcgcgcg gacgggagg aagcgtcccc tcagccctg gaggagctg atcactcct gctgctggcg ctgatgaccg tgctcttca tatgtgtct ctgcccgtaa ttatcgcg ttactatgga gcatttaagg atgtcaagga gaaaaacagg acctctgaag aagcagaaga cctccgagcc ttgcgatttc tatctgtgat ttcaattgtg gaccttga tttttatcat ttccagatct ccagtatttc ggatatttt tcacaagatt tcttagtag ctttaggta caggagccgg tgcagcaatt ccactaacat ggatccagt ctgtgacagt gtttttccat ctgtggtaag ctgaggaata tgtcacattt tcagtcacaa aacca	Homo sapiens
287	3923	Prostaglandin D2 Receptor	atcctgtg cccatgac agtggtcatg gccgtgtgct cctgcctct cagcatccgc tgcttacc aggtgtgc cctgacagc agcagtgaga tggggaccc ccttgccctc cgcttctacg ccttaacc cctctggac cctggtgtc tcatcctttt ccgcaaggtc gtcttccagc gactcaagct ctgggtctgc tgcctgtgcc tcgggctgc ccacggagac tcgagacac ccttttccca gctgcctcc gggaggagg acccaaggcc cccctctgct cctgtgggaa aggggggag ctgctgtcct ttgtcgctt gggcgagg gagggtggag cccttgctc ccacacagca gtcagcggc agcgccgtg gacgtcgtc caaagcagaa gccagcgtc cctgtcctc ctgctgacat ttcaagctga cctgtgatc tctgcctgt cttcgggcga caggagccc aaaaacagg acatggctga tggctgcgga tgctggaacc ttggccccc aactctggg ccgacagct gctgtttctc ctgcgccagg gcagtcgctg ctggctctgg gaagagagt agggacagag gaaacgttta tccctgagt cagaaagaat ggttctctca aataaaccag tggcctggcc gacctgtct ggcctggat tccccatcca ttcattgtc taaatattta gaaggcgag agttctcct aggttctgt acagtcaggt ctgctctggt ctgggtgtg gctccaatct gcgtccact agggagccca actgcccccc ccaagtccc aggggatgg cctccccctc taccagcca ctccaaagc cagccccctt tctgtccac aaaaaccaca gttattggaa agctccctg ccttccctg ccgctggctc cccaccagg ttgggagccc tggcatccca agggggaac gggaggagg ggaggtgct gcattgtgg tgatgacgta ggacatgtgc ttggtacaaa agggcctga gacattccac ct	Homo sapiens

288	3924	Prostaglandin E Receptor EP1	NM_000955	<p> ggggggcgga gggctgagc ggcggtgat gggacccac atcccaggca gtgcccggcac ccttgccg cccttgagc ccttgccggc cctcaacct gagcctggc ggcgagcga ccacatgc ggcgcctgg gtcaccaaca cgtcgccgt ggcgcctgc ggcgttcgc ccgcctgcc catcttctcc atgacgtgg ggcgcgtgc ggcacacc ttctgtctg tgctggcgca ggcgcgggc cgcctggac ggcgcctgc gacccggc ggcctggtg tcgtggccag cctgctggc accgacctg cgcctccg cgcggggg ctgcccctc tgctgtctt cctcgccctg tgcctccg cgcgtccg cgcggggg gtgagcgt gcgtggcgt cagcgcccg cgtctccg cgcgtccg cgcggggg gtgagcgt tgccgtggc cgcgtggc cgcgtggc ggcgtggc ggcgtggc ggcgtggc tgccgtgta tagctgag taccggga cgtgtgct catcgccg ggcgtggc gcgtggc cagcactg cttgtggc tctcgccg cctcgccg ggcgtggc tcgcgcgt ggtgtgac acgtcagc gctggcct gacgtgcg cgtggcgac gccgtccc cggcctcc cgcgtccc cgcgtccc cgcgtccc cgcgtccc acggacccc cgcgtccc cgcgtccc cgcgtccc cgcgtccc cgcgtccc ttggcgctc tggagcag ggcgtggc ggcgtggc ggcgtggc ggcgtggc tgccagct tgcgtgac atggtgtg cgtgcatc ggcgtggc ggcgtggc tggtggcgt ggcgtggc ggcgtggc ggcgtggc ggcgtggc ggcgtggc ccgtggcgt tgcctccc ggcgtggc ggcgtggc ggcgtggc ggcgtggc agccgtgt ggcctaac ggcgtggc ggcgtggc ggcgtggc ggcgtggc ccgcggggt ggcctaac cgcgtggc ggcgtggc ggcgtggc ggcgtggc acagcgcc cagccact cagccact cagccact cagccact cagccact tggtgggc ccaggtggc ggcgtggc ggcgtggc ggcgtggc ggcgtggc MSPCGPNLS LAGEATCAA PWENTSAVP PSGASPALPI FSNLTGAVSN LIALALLAQA P AGRLRRRRA TTFLLFVASL LATDLAHHV RLLHAARVS VARARLALAA VAAVALAVAL LPLARVGRYE LQYPTWCFI GLGPPGWRQ ALLAGLFASL GLVALLAALV CNTLSGLALH RARWRRRSR PPASGPDNR RRGAGHGRS ASASSASSIA SASTFFGSR SSGSARRARA HDVEMVGLV GIMVWSCIW SPMLVLVALA VGGWSSTSLQ RPLFLAVRLA SWNQILDVW YILLRQAVLR QLRLPPRA GAKGPPAGLG LTPSAWEASS LRSSRHSGLS HF gggcgcct cgcgcctg ggcgcctg ggcgcctg ggcgcctg ggcgcctg ttcctctgag tctcggaac ctcagctct cagaccctc cagaccctc cagaccctc gagagaggg cgcctctt ttcagggac cccacctgg gcaatgctc caatgactcc cagctgag actcgagac ggcagctgg ctcctccc ccccaagcc accatcagc tcctcatgt tctcgccg ggcgtggg aacctcat gacgtggc gctggcgcc cgtggcggg ggcagctgg ggcagcgc ggcagcgc ggcagcgc ggcagcgc gtgctgtga cagagctgt ggcagcgc ggcagcgc ggcagcgc ggcagcgc gtactggct cgtacgcgc gaaccagc cgtgctggg cgtgctgc cagccagt tgacctact tgccttgc catgacct ttcagcctg ccacgatgt catgctctc gccatggcc tggagcgta cctctgac cctctgac ggcagccct actctacca ggcgcgcg tcgctccg ggcgcctggc cgtgctgct gtcactatg cagctccct gctctctg </p>	Homo sapiens
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taaatataa agtcagcagc acagacaagg cagatctcat catttgaaa tggtaattcca
gtcctggcg ataatgtgtg tctcctgtat ttgttgagc ccatttcttg ttacaatggc
caacattgga ataatggaa atcattctct ggaacctgt gaaacaacac ttttgcctc
ccgaatggca acatggaatc aaatcttaga tccctgggtg tataattctt tacgaaaggc
tgtccttaag aatctctata agcttgccag tcaatggtgt gttgctgcta tttctgagtc
acataattgg gagcttagt ccattaaaaa tccctaaag gttgctgcta tttctgagtc
accagttgca gagaaatcag caagcaccta gcttaaatagg acagtaaatc tgtgtgggc
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ctggaaaatt caggcttcat catgtagttt gaagatacta ttgtcagatt caggttttga
aatgtgtcaa ataaacagga taactgtaca ttttcaactt gtttttgcca atgggaggtg
gacacaataa aataatgcca tgggagtcac actgaaagca attttgagct tatctgtctt
atttatgctt tgagtgaatc atctgttgag gtctaagtc tctacttggc ctatttgcca
gagaacatct taatgcagcc tgcatagtga aatggttatt ttgagatcac cgctctgtag
ctaaccctta taaactaggc tcagtaaaat aaagcactct tattttttga tctggcctat
tttggccctc attgtgtagc ctcaattaac acatgcatgg tcatgacacc cagaattcat
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gcaatcctat ctagaatggg cccattcttg tcacatttga caaataggac tgcctacatt
tattattatg aaggtcgatt gttgttgaa gtgttttttc atgtcataga ttagcaattt
tcaataaatt atttttctc tgaaaatttt gtgtgtgatt gcacataaaa taatttttag
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tctaccatgg ataatgcaaa caaacggaag ctacatgcca atgatagggt caaagaatat
tggaacaaag tgctttacct tgagccatta tttgtgtcag agaacaacaa acacagaatc
aatatataaa ttcaaaagact atctgcagct agtgtgtttc tcttttacac acataacac
acagacatca gaaaattctg ttgagagcag gtccattaaa tttgtaagat ggcataattc
aaagcctgtg ctaccagtac taagagggga agactggcaa tttggccaagc acttggggat
tattataaca attaactagg agatcaagag ataataatct ctccccaaat tttccaataa
taattgagac tttttctttg cttgtttgtg taattcaacc aaaagaattt caatacccat
tcaaatgtc ctaggctcat cagaaaattag ggaaggtagt cctgctttat aataggaaaa
tgtattttctg tataagattt ctttgccttc attaaaaaatg ggattcattt aaaaattaat
cttccctgt taggctgatt tcagattctc taggaaatct ggtgaagtaa ccagaagact

3298	3928	Prostaglandin F2-alpha Receptor	NP_000950.1	MSMN3KQLV	SPAAALLSNT	TCQTENRLSV	FFSVIFMTVG	ILSNSLAIAI	LMKAYQRF	RQ	P	Homo sapiens
299	4051	Proteinase-Activated Receptor 2	NM_005242	cgccccccc	tggggaggcg	cgagcagag	gctcagattc	ggggcagggt	agaggctgac	A		Homo sapiens
				tttctctcgg	tgcgtccagt	ggagctctga	gtttcgaatc	ggtggcggcg	gattccccgc			
				gcgcccgcg	tgcgggcttc	caggaggatg	cgagccccc	gcgcgcgctg	gctgctgggg			
				gcgcccatcc	tgctagcagc	ctctctctcc	tgcctgagga	ccatcccaag	aaccaataga			
				tcctctaaag	gaagaagcct	tattggttaag	gttgatggca	catcccacgt	cactggaaaa			
				ggagttacag	tgaacacagt	ctttctctg	gatgagtttt	ctgcatctgt	cctcactgga			
				aaactgacca	cggctctcct	tccaaattgtc	tacacaattg	tgtttgtggt	gggtttgcca			
				agtaacggca	tggccctgtg	ggtctttctt	tccgaacta	agaagaagca	ccctgctgtg			
				atttaccatg	ccaatctggc	cttggtctgac	ctcctctctg	tcatctggtt	ccctttgaag			
				attgcctatc	acatacatgc	caacaactgg	atttatgggg	aagctctttg	taatgtgctt			
				attggctttt	tctatggcaa	catgtactgt	tccattctct	tcatgacctg	cctcagttgt			
				cagaggattt	gggtcatcgt	gaaccccatg	gggtcactcca	ggaagaaggc	aaacattgcc			
				attggcatct	ccctggcaat	atggtctgtg	atcttgtctg	tcaccatccc	tttgtatgtc			
				gtgaagcaga	ccatcttcac	tcctgcccctg	aacatcacga	cctgtcatga	tggtttgcct			
				gagcagctct	tgggtggaga	catgttcaat	tacttctct	ctctggccat	tggggtcttt			
				ctgttccccg	ccttctctac	agcctctgcc	tatgtctga	tgatcagaat	gctgcgatct			
				tctgccatgg	atgaaaactc	agagaagaaa	aggaagagggg	ccatcaaaact	catgtcact			
				gtcctggcca	tgtacctgat	ctgcttcact	cctagtaaac	ttctgcttgt	ggtgcattat			
				tttctgatta	agagccaggg	ccagagccat	gtctatgccc	tgtaattgt	agcctctgc			
				ctctctaccc	ttaacagctg	catcgacccc	tttgtctatt	actttgttcc	acatgatttc			
				agggatcatg	caaagaacgc	tctcctttgc	cgaagtgtcc	gcactgtaaa	gcagatgcaa			
				gtatccctca	cctcaagaa	acactccagg	aaatccagct	cttactcttc	aaagtcaaac			
				actgtttaaga	cctcctattg	agttttccag	gtctccagat	gggaatttgc	cagtaggatg			
				tggaacctgt	ttaatgttat	gaggacgtgt	ctgttatttc	ctaatacaaa	aggtctcacc			
				acataccacc	g							
300	4051	Proteinase-Activated	NP_005233.2	MRSPSAWLL	GAAIILAAASL	SCSGTIQGTN	RSSKGRSLIG	KVDGTSHTVG	KGVTVETVFS	P		Homo sapiens
				VDEFSAASVLT	GKLTTFVFLPI	VYTIIVFVGL	PSNGMALWVF	LFRTKKKHHPA	VIYMANLALA			

[illegible]

303	4090	G Protein- Coupled Receptor GPR17	NM_005291	MSKTRNHSTA YLTK	KASLLILVIF TICFAPSNII LIIHHANYYY NNTDGLYFIY LIALCLGSLN SCLDPFLYFL	Homo sapiens
					ccgacaccca cggcgaggaga tcaactgctg cccgcgagac cccgtgccct tcctcccgga A	
					ccagcagcta gagtagtcc aaacggaggtt ggtgggctgg atccagaaag cccccaagag	
					agatgctgaa actctcaggc tctgactcca gccaaagcat gaatggcctt gaagtggctc	
					ccccaggtct gataccaac ttctccctgg ccacggcaga gcaatgtggc caggagacgc	
					cactggagaa catgctgttc gcctccttct accttctgga ttttatcctg gctttagtgtg	
					gcaataacctt ggctctgtgg cttttcatcc gagaccacaa gtccgggacc ccggccaacg	
					tggtcctgat gcatctggcc gtggcggact tgctgtgcgt gctggtcctg cccacccgcc	
					tggtctacca cttctctggg aacctggc catttggga aatgcctgc cgtctcaccg	
					gcttctctctt ctacctcaac atgtacgcca gcatctactt cctcacctgc atcagcgccg	
					accgtttcctt ggccattgtg caccgggtca agtccctcaa gtcccgagg cccctctacg	
					cacacctggc ctgtgccttc ctgtgggtgg tggtagctgt ggcctggcc cccctgctgg	
					tgagccacaca gaccgtgcag accaaccaca cggtagctgt cctgcagctg tacccggaga	
					aggcctccca ccatgccctg gtgtccctgg cagtggcctt caccttcccg ttcataacca	
					cggtaacctg ctacctgctg atcatccgca gcctgcggca gggcctgctt gtggagaagc	
					gcctcaagac caaggcagtg cgcattgatg ccattagtct ggcctatctt ctggctctgct	
					tcgtgcccta ccagtcaac cgtccctctt acgtgctgca ctaccgcag catggggcctt	
					cctgcgccac ccagcgcatc ctggccctgg caaacccgat cacctcctgc ctaccagccc	
					tcaacggggc actcgacccc atcatgtatt tcttcgtggc tgagaagttc cgccacgccc	
					tgtgcaactt gctctgtggc aaaggctca agggcccgcc cccagcttc gaagggaata	
					ccaacgagag ctgctgtagt gccaagttag agctgtgagc gggggggccc gtccaggccc	
					agcgagact gtttaggact cagcagccc agcaagaggc atctgccctt tccccagcca	
					cttccccagc agcaacctg aaatctcagc agatgccac catttctcta gatcgccctag	
					tctcaaccca taaaaaggaa gaactgacaa aggggatcca tcggccaccc ctctgcaggg	
					gcttgtgatg gctacaatgg ctccctagaca ctcaacgact tcatctgtgg caggagaga	
					ggaggccgga agaacaaccc ctgaacaatg gaggccttct tttcccgcta ggtcccagc	
					ctccttcccg ctacagaatc gctcatcgcc gaggtcagc agaaagacc tgaaggcagg	
					ctgcaaatga cccagaagag ggacctggga gtccctgtgg ggacggggag ggagtctcaa	
					tactcctttg cagcgcaagg tactctgagt cccctctgta gtgcctctgc cagacacaca	
					ctgcctgagt tgaagagaca caggccacac atttcaggct ggttgccagc ggacgtcagc	
					actcacggcc tgcggggact cagcacagct ttgattctgt gatctctctt cctgttaaccc	
					cacgcacaag cctgcaaccc ccagagctct ttgacaggct cccaggcctc ccagtccctgg	
					acaagcatgt gcagtcaagg gagctcagct caggccaggg ctgggctgtg cacctgcctc	
					ccactgaccc agaccactt cctccagaga ggctctctc cgcctgagct atttcccttg	
					ctagtgtgca gatatttccc taacatgtcc tttttgtat ttgtttgtac ggaccataaa	
					tataactgta gctttaagac taaaaaaa	
304	4090	G Protein- Coupled Receptor GPR17	NP_005282.1	MSKRSNWAGS RKPPREMLKL SGSDSSQSMN	GLEVAPPGLI TNFSLATAEQ CGQETPLENM P	Homo sapiens
				LFASFYLLDF IIALVGNLTL LWFIRDHKS	GTPANVFLMH LAVADLSCVL VLPFRLVYHF	
				SGNHWPFGEI ACRLTGFLFY LNMYSIYFL	TCISADRFIA IVHPVKSLLK RRPLYAHLAC	
				AFLWVVVAVA MAPLLVSPQT	QLYREKASHH ALVSLAVAF PFITTTVTCY	

305	4254	Rhodopsin	NM_000539	LSAKSEL	<p> LLIIRSLRQG LRVEKRLKTK AVRMIAlVLA IFLVCFVPYH VNRSVYVLHY RSHGASCATQ RILALANRIT SCILTSINGAL DPIMYFFVAE KFRHALCNLL CGKRLKGPFP SFEKTNES agagtcattcc agctggagcc ctgagtggct gagtcaggc cttcgacagca ttcttgggtg ggagcagcca cgggtcagcc acaaggcca cagccatgaa tggcacagaa ggccttaact tctactggcc cttctcaat gcgacgggtg tggtagcagc ccccttcgag taccacagt actacctggc tgagccatgg cagttctcca tgcctggcgc cgtccagcac aagaagtgc tgcctgggctt ccccatcaac ttcctcacgc tctacgtcac cgtccagcac aagaagtgc gcaagcctct caactacac cagcaccctc tacacctctc tgcattgata cttcgtcttc gggccacag gatgcaattt ggaggcttc ttggccacc ttggcggtga aattggcctg tggccttgg tggctcctggc catcgagcgg tacgtgggtg tgtgtaagcc catgagcaac ttccgcttcg gggagaacca tgccatcatg ggcgttgctt tccacgggt tcatggcgtg gctggcgcg caccgccact cgcggctgg tccaggtaca tcccgaggg cctgcagtcg tctgtgtgaa tgcactacta cagcgtcaa cggaggtca acaacgagc tttgtcatc tacatgttcg tggctccactt caccatccc atgattatca tcttttctg ctatgggagc ctcgtcttca ccgtcaagga ggcgctgccc cagcagcagg agtcagccac cacacagaa gacagagaag aggtcaccgc catggtcatc atcatggtca tgccttctc tgccttctg gtgcccctacg ccagcgtggc attctacatc ttacccacc agggctccaa cttcgggtccc atcttcata ccatccagc gttctttggc aagagcgccg ccactatcaa cctgtcatc tatatcatga tgaacaagca gttccggaac tgcattgtca ccacatctg ctgcggcaag aaccactgg gtgacgatga ggcctctgct accgtgtcca agcggacta taggcgtctc gccccggcct aagacctgcc taggactctg tggcggacta ggcggcagc ctgtgcagaa caccttcccc cagccacagc catccacca ggagcagcgc ctgtgcagaa tgaacgaag cacataggct ccttaatttt tttttttttt ttaagaaata attaatgagg ctcctcactc acctgggaca gcctgagaag ggacatccc caagacctac tgatctggag tcccacgttc ccaagggcca gcgggatgtg tgcccctcct cctcccaact catctttcag gaacacgagg attcttgctt tctggaaaag tgtcccagct tagggataag tgtctagcac agaattgggc acacagtagg tgcttaataa atgctggatg gatgcaggaa ggaattggag aatgaattgg aagggagaa atatctatcc tctcagacc tgcgacgagc agcaactcat acttggtctaa tgatatggag cagttgtttt tccctccctg ggcctcactt tcttctccta taaaatggaa atccagatc cctggtcctg ccgacacgca gctactgaga agaccataag aggtgtgtgt gtgtctatgt gtgtgtttca gcaactttgt aatagcaaga agctgtacac attctagtt atgttgtgaa taacatcaat taatgtaact agttaattac tatgattatc acctcctgat agtgaacatt ttgagattgg gcaattcagat gatgggggtt caccacact tggggcaggt ttttaaaat tagctaggca tcaaggccag accagggctg ggggttgggc tgtaggcagg gacagtcaca ggaatgcagg atgcagtcac cagacctgaa aaaaacac tgggggagg ggacggtgaa ggcaagtcc ccaatgaggg tgagattggg cctgggggtc caccctagt gtggggcccc aggtcccggtg cctcccttc ccaatgtggc ctatggagag acaggcctt ctctcagcct ctggaagcca cctgctctt tgctctagca cctgggtccc agcatctaga gcattggagcc tctagaagcc atgctcacc gccacattt aattaacagc tgaagtcctt atgtcctct </p>	<p> A Homo sapiens </p>
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306	4254	Rhodopsin	NP_000530.1	<p> tactcgaaga gcttagaagc aaagagtggg aaattccact gggccctacct tccttgggga tgttcattggg cccagtttc cagttccctc tgccagacaa gcccatcttc agcagttgct agtccattct ccattctgga gaattgctc caaaaagctg gccacatctc tgaggtgtca gaattaagct gcctcagtaa ctgctccccc ttctccatat aagcaaaagc agaagctcta gctttaccca gctctgcctg gagactaagg caaatgggc cattaaaagc tcagctccta tgttggtatt aacgggtggtg ggttttgttg ctttcacact ctatccacag gatagattga aactgccagc ttccacctga tccctgacct tgggatggct ggattgagca atgagcagag ccaagcagca cagagtcccc tggggctaga ggtggaggag gcagtccctg gaatgggaaa aaccacca </p>	Homo sapiens
307	4284	Retinal G Protein-Coupled Receptor RPE	NM_002921	<p> MNGTEGPNFY VPFSNATGVV RSPFEYPOYY LAEPWQFSML AAYMFLLVL GFPINFLTLY P VTVQHKKLRT PLNYILLNLA VADLFMVLG FTSTLYTSLH GYFVFGPTGC NLEGFATLG GEIALMSLVV LAIERVAVVC KPMSNFRFGE NHAIMGVAF WMALACAP PLAGWSRYIP EGLQCSGID YYTLKPEVNN ESFVIYMEVV HFTIPMIIF FCYGLVFTV KEAAAQQQES ATTQKAEKEV TRMVIIMVIA FLICWVPYAS VAFYIFTHQG SNFGPIFMTI PAFFAKSAAI YNPVIYIMNN KQFRNCMLTT ICCGNPLGD DEASATVSKT ETSQVAPA agagacagct gggccactgg cagtgaaggga gagtgaaggat ggcagagacc agtgccctgc A ccactggctt cggggagctc gagtgctgg ctgtggggat ggtgctactg gtggaagctc tctccggtct cagcctcaat accctgacca tcttctcttt ctgcaagacc cgggagctgc ggactccctg ccacctactg gtgctgagct tggctcttgc ggacagtggg atcagcctga atgccctcgt tgcagccaca tccagccttc tccggcgctg gccctacgcg tggacggct gccaggctca cggcttccag ggccttgctga cagcgttggc cagcatctgc agcagtgcag ccatcgcatg gggcggttat caccactact gcacccgtag cagcgtggcc tggaaactcag ccgtctctct ggtgctcttc gtgtggctgt cttctgcctt ctgggcagct ctgccccctc tgggttgggg tcaatatgac tatgagccac tggggacatg ctgcacctg gactactcca agggggacag aaacttcacc agcttctctc tcaccatgct cttcttcaac ttcgccatgc ccctcttcat cactacact tctacagtc tcatggagca gaaactgggg aagagtggcc atctccaggt aaacaccact ctgccagcaa ggacgtgct gctcggctgg ggcctctatg ccatctctgta tctatacgca gtcatcgag acgtgacttc catctcccc aaactgcaga tgggtccgc cctcattgcc aaaaatggtc ccacgatcaa tgccatcaac tatgcctgg gcaatgagat ggtctgcagg ggaatctggc agtgcctctc accgcagaag agggagaagg accgaaccaa gtgagcctgc caccctggag tgagccccag gccaggaggc tgttccagga gtcctgcca gcagcctcg tggccaagc cagacactca cccaccttc ccagtggccc cgtgatctt ggtcctaggc tggacacagg attcagaaa acaccaggct gcacagaaag agccagatgg acctgagtgt cggtcacagc cccctacact caaggctgag aggcctcagg aaagtcatc ctttttaaaa ataataataa atgtaagggg gtacagtga gtttgttac atggatagat tgcctagtgg tgaagtctgg gcttttagtg taaccatcac cctaataata tacgttgtac ccattaagtt atttctcat cctcaccctc tccaccttg tccacctct gagttccaa tgtctattat tccacactcc atgtccacgt gtacacatta tttagctccc acttacaagt gagaacatgt ggtatttgac ttta </p>	Homo sapiens
308	4284	Retinal G Protein-	NP_002912.1	<p> ADSGISINAL VAATSSLLRR WPGSDGCOA HGFGFVTAL ASICSSAAIA WGRYHHYCTR MAETSALPTG FGELEVIAGV MVLVLEALSG LSLNTLTIFS FCKTPELRTP CHLLVLSLAL P </p>	Homo sapiens

309	4321	Coupled Receptor RPE	Secretin Receptor	NM_002980	SQLAWN SAVS LVLFWLSSA FWAALPLL GW GHYDYEPLGT CCTLDYSKGD RNFTSFLFTM SFFNFAMPLF ITITSYSLME OKLGKSGHLQ VNTTLPARTL LLGWGPYAIL YLYAVIADVT SISPKLQMPV ALIARVMPTI NAINYALGNE MVRGIWQCL SPQKREKDR K acgaggcccg ccggagcccg ggaccctcg ccggcgcccg agctcccgag cgggcagagg A gcacgggacg ccggagcgtcg ggagccctc ccgggaacgtg cgggcaccat gcgtcccccac ctgtgcgcgc cgtgcgacga gctactactg ccgtgtgtcg tcgcctgcgc cgcgcactcg actggagccc ttcccgcact atgtgacgtg ctacaagtgc tgtgggaaga gcaagaccag tgcctgcagg aactctccag agagcagaca ggagactgg gcacggagca gccagtgcga ggtgtgagg ggaatgtggga caacataagc tgcgtgccc ctctgtgccc ggcccgatg gtggaggtgg aatgcccag atctctccg atgtcacca gcagaaatgg ttccctgttc cgaactgca cacagatgg ctggtcagaa accctccca gccctaactt gccctgtggc gttaaatgta acgactctc caacgagaag cggcactct accgtgtgaa gctgaaagtc atgtacacg tgggctacag ctctccctg gtcagtctc tggcgccct tggcactctc tgtgctttcc ggaggtcca ctgcactgc aactacatc acatgcacct ttctgtgccc ttcatctctc gtgcccgtc caacttcac aaggacgccc tgctctctc ctccagatgat gtcacctact gcgacctgca caggcgccc tgcaagctgg tcatggtgct gtccagatc tgcacatgg ccaactact ctggtgctg gtggaaggcc ttacacttca cacactctc gccatctct tcttctctga aagaagatc ctccagggat ttgtggcatt cggatggggg ttccagacca tttttgtgct tttgtgggct attgccagac actttctgga agatgttggg tgtgtggaca tcaatgccaa cgcattccatc tgggtggatca ttctgtgtcc tgtgacccc tccatctga ttaatttcat cctttcata aacattctaa gaatcctgat gaaaaaactt agaacccaag aaacaagagg aaatgaagtc agccattata agcctctggc caggtccact ctcctgctga tccccctct tggcattccac tacatctgct tcgctctctc ccagaggac gctatggaga tccagctgtt tttgaaacta gcccttggct catccaggg actggtggtg gcgctcctct actgcttct caatggggag gtgcagctgg aggttcagaa gaagtggcag caatggcacc tccgtgagtt cccactgcac cccgtggcct ccttcagcaa cagcaccaa gccagccact tggagcagag ccagggcacc tgcaggacca gcatcatctg agaggctgga gcagggtcac ccacggacag agaccaagag aggtcctgag aaggctgggc actgctgtgg gacagccagt ctccccagca gacacctgt gtctccttc agctgaagat gccctcccc aggccttgga ctctccgaa gggatgtgag gcaactgtgg gcaggacaa ggcctgggat ttggttcgtt tgctctctg ggaagagaag ttcaggggct ccagaaagg acagggaat aaatggtgccc tgggatgaga ttc NP_002971.1	310	4321	Secretin Receptor	NP_002971.1	MRPHLSPPLQ QLLLPVLLAC AAHSTGALPR LCDVLQVLWE EQDQCLQELS REQTGDLGTE P QVPVGCCEMW DNISCWPSV PGRMVEVECP RFLRMLTSRN GSLFRNCTQD GWSETFPRPN LACGVNVDN SNEKRHSYLL KLVMTYVGY SSSLVMLLVA LGILCAFRRL HCTRNYIHMH LFVSFILRAL SNEFKDAVLF SSDDVTYCDP HRAGCKLVMV LFQYICIMANY SWLLVEGLYL HTLLAISFFS ERKYLQGFVA FGWGSPIFV ALMAIARHFL EDVGCWDINA NASIWWIIRG PVILSILINF ILFINILRIL MRKLRTQETR GNEVSHYKRL ARSTLLIPL FGIHYIVFAF SPEDAMEIQL FFEALGSFQ GLVAVLYCF LNEVQLEVQ KKWQWHLRE FPLHPVASFS NSTKASHLEQ SQGTCRTSII	Homo sapiens
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311	4480	Somatostatin NM_001049 Receptor Type 1	atgttcccca atggcaccgc ctctctctct tctctctctc ctagcccaag cccggggcagc A tgcggcgaa ggcggcgag cagggggccc gggggcgcg ctgcggacg catggaggag ccaggcgcaa atgcgtccca gaacgggacc ttgagcgag gccaggcgag cgccatcctg atctctttca tctactcctg ggtgtgctg gtggggctgt gtgggaactc tatggtcatc tacgtgatcc tgcgtatgc caagatgaag acggccacca acatctacat cctaaatctg gccattgctg atgagctgct catgtcagc gtgccccttc tagtcacctc caggttggtg cgccactggc cttcggtgc gctgctctgc cgctcgtgc tcagcgtgga cgcggtcaac atgttcacca gcattctactg tctgactgtg ctacagcgtg accgctacgt ggccgtgggtg catcccatca aggcggccc ctaccgcgg ctccatcctg cccatcgtg tcttctctg caccgcggcc gtgtgggtgc tctcgtgct cgtcatcctg ctcaacatg ctcatgccag agcccgctca acgtggctg aacagcgacg gcacggtggc tttgttacac atttctcatg ggttctctgc tgcccgtggg gctatctgc gtgggcttcg tgtctacat tgctaagatg cgcattggtg cctcaaggc cggctggcag cagcgcaagc gctcgagcg caagatcac tttaatggtga tcatggtggt gatggtgttt gtcatctgct gtagtcctt ctacgtggtg cagctggtta acgtgttgc tgagcaggac gacgccagc gtagtcagct gtcggtcac ctccgctatg ccaacagctg cgcacaaccc atctctatg gcttctctc agacaactc agcgcctct tccaaacgat cctatgcctc agctggatgg acaacgcgc ggaggagcgg ttgactatt acgccaccg gctcaagagc cgtgcctaca gtgtggaaga cttccaaact gagaacctg agtcggcg cgtcttcgt aatggcaact gcacgtccc gatacagacg ctctga MFPNGTASSP SSSPSPSGS CAGAADGME PGRNASQNGT LSEGGGSAI L P ISFIYSVVCL VGLCGNSMVI YVILRYAKMK TATNIYILNL AIADELLMLS VPFLVTSTLL RHWPFALLC RIVLSVDVN MFTSIYCLTV LSVDRYAVV HPIKAARYRR PTVAKVNLG VWVLSLLVL PIVVFSRTAA NSDGTACNM LMPEPAQRWL GFLLPVGAIC LCYVLIIAKM RMVALKAGWQ QRKRSERKIT LMVMVMVMVF VICWMPFYV QLVNVEAEQD DATVSQLSVI LGYANSCANP ILYGFLSDNF KRSPQRILCL SWMDNAAEEP VDYYATALKS RAYSVEDFQP ENLESGGVFR NGTCTSRITT L	Homo sapiens
312	4480	Somatostatin NP_001040.1 Receptor Type 1	atggacatgg cggatgagcc actcaatgga agccacacat ggctatccat tccattgac A ctcaatggct ctgtggtgtc aaccaacacc tcaaacacaga cagagccgta ctatgacctg acaagcaatg cagtcctcac attcatctat ttgtggtct gcatcattgg ttgtgtggc aacacacttg tcatttatgt cctcctccg catcctcatg tgaagacat caccaacatt tacatcctca acctggccat cgcagatgag ctcttcatg tgggtctgct ttcttggt atgcagggtg ctctggtcca ctggcccttt ggcaaggcca ttgcccgggt ggtcatgact gtggatggca tcaatcagtt caccagcatc tctgctgga cagtcatgag catcgaccga tacctggctg tgggtccacc catcaagtcg ggcaagtggga ggagacccc gagggccaag atgatcacca tggctgtgtg gggagtctct ctgctggtca tcttgcccat catgatata gctgggctcc ggagcaacca gtgggggaga agcagctgca ccatcaactg gccaggtgaa tctggggctt ggtacacagg gttcatcacc tacacttca ttctggggtt cctgggtacc ctcaccatca tctgtctttg ctacctgttc attatcatca aggtgaagtc ctctggaatc cagtggtggct cctctaagag gaagaagtct gagaagaagg tcaccggaat ggtgtccatc gtggtggctg tcttcatctt ctgctggctt ccttctaca tattcaactt ttcttccgtc	Homo sapiens
313	4481	Somatostatin NM_001050 Receptor Type 2		Homo sapiens

Homo
sapiens

P

314 4481 Somatostatin NP_001041.1
Receptor
Type 2

tccatggcca tcagcccccac ccagccctt aaaggcatgt ttgactttgt ggtggtccctc
acctatgcta acagctgtgc caaccctatc ctatatgcct tctgtctga caacttcaag
aagagcttcc agaagtctct ctgcttggtc aaggtgagcg gcacagatga tggggagcgg
agtgcacagta agcaggacaa atcccggtcg aatgagacca cggagaccca gaggacccctc
ctcaatggag acctccaaac cagtatctga
MDMADEPLNG SHTWLSIPFD LNSGVSTNT SNQTEPYDYL TSNAVLTIFY FVVCIIIGLGG
NTLVIYVILR YAKMKTITNI YILNLAIAD E LFMGLPEFLA MQVALVHPFF GRAICRVMT
VDGINQFTSI FCLTWMSIDR YLAVVHPIKS AKWRRPTAK MITMAVWGS LLVILPIMIY
AGLRSNQWGR SSTINWPGE SGAWYTGFI YTFILGLFVP LTIICLCYLF IIKVKSSGI
RVGSSKRKKS EKKVTRMYSI VVAVFICWL PFYIFNVSSV SMAISPTPAL KGMEDFVVVL
TYANSCANPI LYAFSLDNEK KSFQNVLCV KVGTDGGER SDSKQDKSRL NETTETQRTL
LNGDLQTSI

Homo
sapiens

A

315 4482 Somatostatin NM_001051
Receptor
Type 3

atggacatgc ttcatccatc atcgggtgtcc acgacctcag aacctgagaa tgcctcctcg
gcctggcccc cagatgccac cctgggcaac gtgtcggcgg gcccaagccc ggcagggctg
gccgtcagtg gcgttcgat ccccttggtc taccctggtg tgtcgtggtt gggcctgctg
ggtaacctgc tggatcata tgggttcctg cggcacacgg ccagcccttc agtcaccaac
gtctacatcc tcaacctggc gctggccgac gagctcttca tgtgggggtt gcccttcctg
gccgccaga acgcccctgc ctactggccc ttgggtccc tcaatgtgcc cctggtcatg
gcggtggatg gcataacca gttcaccagc atattctgc tgactgtcat gagcgtggac
cgtaacctgg ccgtggtaca tccccccgc tggcccgctt ggcgcacagc tccggtggcc
cgacaggta cgcggtgtgt gtgggtggcc tcagccgtgg tgggtgctgc cgtggtggtc
ttctcgggag tgcccccgcg catgagcacc tgccacatgc agtggccccg gccggcggtg
gcctggcgag cgggcttcat catctacacg gccgcactgg gcttcttcgg gccgctgctg
gtcatctgcc tctgctacct gctcatcgtg gtgaaggtgc gctcagctgg gcgccgggtg
tgggcaacct cgtgccagcg gcgccggcgc tccgaacgca ggtcaccgag catggtggtg
gccgtggtgg cgctcttcgt gctctgctgg atgcccttct acgtgctcaa catcgtcaac
gtggtgtgcc cactgccccg ggagcctgcc ttctttgggc tctacttctt ggtggtggcg
ctgccctatg ccaacagctg tgccaaaccc atcctttatg gcttctcttc ctaccgcttc
aagcagggtt tccgcagggt cctgctgcgg cctcccgcc gtgtgcgcag ccaggagccc
actgtggggc ccccgagaa gactgaggag gaggatgagg agggaggaga tggggaggag
agcaggagg ggggcaagg gaaggagatg aacggccggg tcagccagat cagcagcct
ggcaccagcg ggcaggagcg gccgccagc agagtggcca cgaaggaga cagctccta
ccccaaagg cttccactgg ggagaaatcc agcacagatgc gcatacagta cctgtag
MDMLHPSVS TTSEPENASS AWPPDNLGN VSA GPSAGL AVSGVLIPLV YLVVCVWGLL P
GNSLVIYVVL RHTASPSVTN VYILNLALAD ELFMLGLPFL AAQNALSYWP FGSIMCRLLM
AVDGINQFTS IFCLTMSVD RYLAVVHPTR SARWRTAPVA RTVSAVWVA SAVVLPVWV
FSGVPRGMST CHMQWPEPAA AWRAGFIYT AALGFFGPLL VICLCYLLIV VKVRSAGRRV
WAPSCQRRR SERRVTRMV AVVALFVLCW MPFVLNIV VVCPLEPEPA FFGLYFLVWA
LPYANSCANP ILYGFLSYRF KQGFRRVLLR PSRRVRSQEP TVGPPEKTEE EDEEEDGEE
SREGGKGKEM NGRVSQITQP GTSGQERPPS RVASKEQQLL PQEASTGEKS STMRI SYL

Homo
sapiens

P

316 4482 Somatostatin NP_001042.1
Receptor
Type 3

317	4483	Somatostatin Receptor Type 4	NM_001052	atgagcgccc cctcgacgct gccccccggg ggcgaggaag ggctggggag ggccctggccc	Homo sapiens
				tctgcagcca atgccagtag cgctccggcg gaggcggagg aggcggtggc ggccccggg	
				gacgcgggg cgcggggcat ggtcgctatc cagtgcattc acgcgctggt gatcctggtg	
				gggctgggtg gcaacgcctt ggtcatcttc gtgaccttc gtagcgcac gatgaagacg	
				gctaccacca tctacctgct caacctggcc gtagccgacg agctctcat gctgagcgtg	
				cccttcgtgg cctcgtcggc cgccctgcgc cactggccct tcggctccgt gctgtgccgc	
				gcggtgctca gcgtcgacgg cctcaacatg ttaccacagc tcttctgtct caccgtgctc	
				agcgtggacc gctacgtggc cgtgggtgac cctctgcgc cgcgaccta ccggcgccc	
				agcgtggcca agctcatcaa cctggggcgtg tggctggcat cctgttggc cactctccc	
				atcgccatct tcgcagacac cagaccggct cgcgcgggc aggcgtggc ctgcaacctg	
				cagtggccac acccgccctg gtcggcagtc ttcgtggtct acacttctt gctgggcttc	
				ctgctgcccc tgcctggccat tggcctgtgc tacctgtca tctgggcaa gatgcgcgc	
				gtggccctgc gcgtggctg gcagcagcg aggcgtcgg agaagaaat caccagcctg	
				gtgctgatgg tcgtggctgt cttgtgtctc tgcgtgatc ctttctact ggtgcagctg	
				ctgaacctcg tcgtgaccag cctgatgcc accgtcaac acgtgtccct tctctcagc	
				tatgccaa gctgcgcaa cctattctc tatggcttc tctccgaca cttccgccga	
				tcttccagc gggttctctg cctgcgtgc tgcctcctgg aagtgctgg agtgctgag	
				gaggagcccc tggactacta tgcactgct ctcaagaca aagtggggc aggtgcatg	
				tgccccccac taaaatgcca gcaggaagc ctgcaaccag aacccggccg caagcgcac	
				ccctcacca ggaccaccac cttctga	
318	4483	Somatostatin Receptor Type 4	NF_001043.1	MSAPSTLPPG GEEGLGTAMP SANASSAPA EAEAVAGPG DARAGMVAI QCIYALVCLV P	Homo sapiens
				GLVGNALVIF VILRYAKMT ATTLYLNLA VADELFLMSV PFVASSALR HWFGSVLCR	
				AVLSVDGLNM FTSVFCLTVL SVDYVAVVH PLRAATYRRP SVAKLINLV WLASLLVTL P	
				IAIFADTRPA RGGQAVACNL QWHPAWSAV FVYTFLLGF LLPVLAIGLC YLLIVGKMRA	
				VALRAGWQQR RRSEKITRL VLMVVVFEVL CWMFFYVQL LNLVVTSLDA TVNHVSLILS	
				YANSCANPIL YGFLSDNFR SFQVLCRLC CLLEGAGGAE EEPLDYYATA LKSKGGAGCM	
				CPPLKCQQA LQPEGRKRI PLTRTTF	
319	4484	Somatostatin Receptor Type 5	NM_001053	atggagcccc tgttcccagc ctccacgccc agctggaacg cctcctccc gggggctgccc A	Homo sapiens
				tctggaggcg gtgacaacag gacgtgggtg gggccggcgc cctcggcagg gggccggcg	
				gtgctgggtg cctgtctgta cctgtggtg tgtcgggccc ggtggggcg gaacacgctg	
				gtcatctacg tgggtctgcg cttcgccaa atgaagaccg tcaccaaat ctacattctc	
				aacctggcag tggccgact cctgtacatg ctgggggctgc cttcctggc cagcagaac	
				gcgcgtcct tctggccctt cgccccctc ctgtgcgcgc tggatcatg cctggacggc	
				tcacaaccagt tcaccagtgt cttctgctg acagtcatga cgtggaccg ctacctggca	
				gtgggtgacc cgctgagctc gggccgctgg gcgcgcgcgc gtgtggccaa gctggcgagc	
				gcgcggcctt ggtcctgtc tctgtgatg tcgtgcgcgc tctgtgtgtt cgcggacgtg	
				caggagggcg gtacctgcaa cgccagctgg ccggagcccg tggggctgtg gggcgccgtc	
				ttcatcatct acacggcctt gctgggcttc ttcgcgcgc tgcgtgtcat ctgctgtgc	
				tacctgtca tgcgtgtgaa ggtgagggcg gcgggctgac gcgtgggctg cgtgcggcg	
				cgctcggagc ggaaggtgac gcgcattgtg ttggtggtg tgctggtgtt tgcgggatgt	
				tggctgccct tcttcacct caacatgctc aacctggcgc tggcgctgcc ccaggagccc	

Homo
sapiens

P

Somatostatin NP_001044.1

Receptor

Type 5

4484

320

gcctccgccc gctctactt ctctgtgtgc atctctctct acgccaacag ctgtgccaac
 cccgtctct acggtctct ctctgacaac ttccgcccaga gcttccagaa ggtctctgtgc
 ctccgcaagg gctctgtgtc caaggacgct gacgccacgg agccgctcc agacaggatc
 cggcagcagc aggaggccac gccgcccgcg caccgcccgc cagccaacgg gcttatgcag
 accagcaagc tgtga

MEPLFPASTP SWNASSPGAA SGGGDNRTL VPAPSAGARA VLVPVLYLLV CAAGLGNTL
 VIYVLRFAK MKTVNIYIL NLAVADVLYM LGPLFLATQN AASFPPGPV LCLVMTLDG
 VNQTSVFCL TVMSVDRLA VVHPLSSARW RRPVAKLAS AAANVLSLCM SLPLVFADV
 QEGGTCNASW PEPVGLWGA VFIYTAVLGF FAPLLVICLC YLLIVVKVRA AGVRVGCVR
 RSRKVTMV LVVVLVFA G WLFFFTVNI VNLAVLPQEP ASAGLYFFV ILSYANSCAN
 PVLGFLSDN FRQSFQKVL LKRGSGAKDA DATEPRPDRI RQQEATPPA HRAANGLMQ

TSKL

Homo
sapiens

A

Tachykinin NM_001058

Receptor 1

4552

321

aattcagagc caccgcccgc aggcggggcag tgcatccaga agcgtttata ttctgagcgc
 cagttcagct ttcaaaaaga gtgctgcccc taaaaagcct tccaccctcc tgtctgcttt
 agaaggaccc tgagcccag gcgccagcca caggactctg ctgcagaggg gggttctgta
 cagatagtag gctttacgc tagcttcgaa atggataacg tctcccggg ggactcagac
 ctctcccaa acatctccac taacacctcg gaacccaatc agttcgtgca accagcctgg
 caaattgtcc ttggggcagc tgctacacg gtcatgtggt tgacctctgt ggtgggcaac
 gtggtagtga tgggtgatcat cttagcccc aaaaagaatga ggacagtgc gaactatttt
 ctggtgaacc tggccttcgc ggaggcctcc atggctgcat tcaatacagt ggtgaacttc
 acctatgctg tccacaacga atggtactac ggctgttct actgaaagt ccacaacttc
 ttcccatcg cgcgtgtctt cgcagatc tactccatga cggctgtggc ctttgatagg
 tacatggcca tcatacatcc cctccagccc cggctgtcag ccacagccc caaagtggc
 atctgtgtca tctgggtcct ggtctctctg ctggccttc atgctcgaat tccgaacaag
 acagagacca tggccagcag agtctgtgc atgctcgaat ggccagagca tccgaacaag
 atttatgaga aagtgtacca catctgtgtg actgtgctga tctacttct cccctgtctg
 gtgattggct atgcatacac cgtagtggga atcacactat gggccagtga gatccccggg
 gactcctctg accgctacca cgaagcaagtc tctgccaagc gcaagtggt caaaatgatg
 attgtctgg tgtcacctt cgcctctgc tggctgccc tccacatctt cttcctcctg
 ccctacatca accagatct ctacctgaag agtttatcc agcaggtcta cctggccatc
 atgtggctgg ccatgagct caccatgtac aaccccatca tctactgtg cctcaatgac
 aggttccgtc tgggcttcaa gcatgcttc cggctgtgccc ccttcacag cggcggcgac
 tatgaggggc tggaaatgaa atccaccgg tatctccaga cccagggcag tgtgtacaaa
 gtcagcgcc catctccaca gtggtggggg cccacagagga ggagccagag
 gacggcccca aggccacacc ctgctccctg gacctgacct ccaactgctc ttcacgaagt
 gactccaaga ccatgacaga gagcttcagc ttctcctcca atgtgctctc ctaggccaca
 ggccctttgg caggtgcagc cccactgccc tttagacctg ctccttcat gcatggaaat
 tcccttcac tggaaacctc agaaacaccc tcacactggg acttgcaaaa aggttcagta
 tgggttaggg aaaaattcc atccttgagt caaaaaatct caattcttc ctatctttgc
 caccctcatg ctgtgtgact caaaccaaat cactgaactt tgctgagcct gtaaaataaa
 aggtcggacc agcttttct caagagccca atgcatcca ttcttggaag tgactttggc

322	4552	Tachykinin Receptor 1	NP_001049.1	tgcatgcgag tgctcattc aggatg	LSPNISTNTS EPNQFQPAW QIVLWAAAYT VIVVTSVUGN VVVMWIIIAH P	Homo sapiens
				KRMRTVTNYF LVNLAFAEAS MAEFNTVNE TYAVHNEWYY GLFYCKFHFNF FPIAAVFASI		
				YSMTAVAFDR YMAIIHPLQ RLSATATKV TVLIYFLPLL VIGYAYTVVG ITLWASEIPG DSSDRYHEQV		
				MIEMPEHPNK IYKVVHICV WLPFHIFLL PYINPDLYLK KFIQVYLAI MWLAMSSTMY		
				SAKRKVWQM IVVCTFAIC RCPFIISAGD YEGLEMKSTR YLQTQGSVYK VSRLETTIST		
				NPIIYCCIND RFLGFKHAF		
				VVGAHEEPE DGPKATPSSL DLTSNCSRS DSKTMTESFS FSSNVLS		
323	4687	Thrombin Receptor	NM_001992	ggcggggggc gcacagagc agaggggctt gcgagcggcg gctgagggac cgcgggggag A		Homo sapiens
				ggggcccgag cggctccagc gcagagactc tcaatgcacg ccggaggccc cttcctcgct		
				ccggcccgcg gaccgcgcg cccagtcggt accctgattc taccctggg caccctgcg tctgctgccc		
				gctgcggag ggtcgcttg cctcccgac cgcagaagt caggagagag ggtgaagcgg agcagccga		
				ggcggggcgag cctcccgag cagcggcgcg cagagcccg gacaaatgggg ccgcgggcgcg		
				tgctgctggt ggccgctgc ttcagtcgtt gcggcccgct gttgtctgccc cgcacccggg		
				ccgcgagggc agaatacaaa gcaacaaatg ccaccttaga tccccgggtca tttcttctca		
				ggaaacccaa tgataaatat gaacattttt gggaggatga ggagaaaaat gaaagtgggt		
				taactgaata cagattagtc tccatcaata aaagcagtc tctcaaaaa caactcctg		
				cattcatctc agaagatgcc tccgatatatt tgaccagctc ctggctgaca ctctttgtcc		
				catctgtgta caccggagtg tttgtagtca gcctcccact aaacatcatg gccatcgttg		
				tggtcatcct gaaaatgaag gtcaagaagc cggcggtggt gtacatgctg cacttgccca		
				cggcagatgt gctgtttgtg tctgtgctcc cctttaagat cagctattac tttccggca		
				gtgattggca gtttgggtct gaattgtgtc gcttcgtcac tgcagcattt tactgtaaca		
				gtacgcttc tatctgtctc atgacagtca taagcattga ccggtttctg cgtgtggtgt		
				atcccatgca gtccctctcc tggcgtactc tgggaaggcg ttccttctact tgtctggcca		
				tctgggcttt ggccatcgca ggggtagtgc ctctcgtcct caaggagcaa accatccagg		
				tgcccggtct caacatcact accgtgcatg atgtgctcaa tgaacccctg ctgaaggct		
				actatgcta ctacttctca gccttctctg ctgtcttctt tttgtgccc ctgactcattt		
				ccacggctctg ttatgtgtct atcattcgat gtcttagctc ttcgcagttt gccaaaccga		
				gcaagaagtc ccgggctttg ttcctgtcag ctgctgtttt ctgcattctt atcatttgct		
				tccgacccac aaacgtcctc ctgattgccc attactcatt cctttctcac acttccacca		
				cagaggtgc ctactttgccc tacctcctct gtgtctgtgt cagcagcata agctcgtgca		
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				agaaaaaggg actgctggga ggttaaaaaa aaaaatttat aaaagtgaat aacctgagga		
				ttctattagt cccaccccaa actttattga ttacctcctt aaacaacag atgtacgact		
				tgcatacctg ctttttatgg gagctgtcaa gcatgtattt ttgtcaatta ccagaaagat		
				aacaggacga gatgacggtg ttattccaa ggaattatgc caatgtaca gtaataatg		
				aatgtcactt ctggatatag ctaggtgaca tatacatact tacatgtgtg tatatgtaga		

324	4687	Thrombin Receptor	NP_001983.1	<p> tgtatgcaca cacatatatt atttgcagtg cagtatagaa taggcacttt aaacactct ttccccgcac ccagcaatt atgaaaaataa ttctctgattc cctgatttaa tatgcaaaagt ctaggttggt agagttagc cctgaacatt tcatggtgtt catcaacagt gagagactcc atagtttggg ctgtaccac ttttgcaaat aagtgtattt tgaattgttt tgacggcaag gtttaagtta ttaagaggta agacttagta ctatctgtgc gtagaagttc tagtgttttc aattttaaac atatccaagt ttgaattcct aaaattatgg aaacagatga aaagcctctg tttgatatg ggtagtattt ttacatttt acacactgta cacataagcc aaactgagc ataagtcctc tagtgaatgt aggtgggtt tcagagtagg ctattcctga gagctgcatg tgtccgcccc cgatggagga ctccaggcag cagacacatg ccagggccat gtcagacaca gattggccag aaacctcct gctgagcctc acagcagtga gactggggcc actacatttg ctccatcctc ctgggattgg ctgtgaactg atcatgttta tgagaaactg gcaaaagcaga atgtgatc ctaggaggta atgacctga agacttctc tacccatctt aaaaacaacg aaagaaggca tggacttctg gatgcccatc cactgggtgt aaacacatct agtagttgtt ctgaaatgtc agttctgata tggaaagcacc cattatgctg tgtggccact ccaataggtg ctgagtgtac agagtggat aagacagaga cctgcccctc agagcaaaagt agatcatgca tagagtgtga tgtatgtgta ataaatatgt ttcacacaaa caaggcctgt cagctaaaga agtttgaaca tttgggttac tatttcttgt ggttataaact taatgaaaac aatgcagtac aggacatata ttttttaaaa taagtctgat ttaattgggc actatttatt tacaatgtt ttgctcaata gattgctcaa atcagggttt cttttaagaa tcaatcatgt cagtctgctt agaaataaca gaagaaaata gaattgacat tgaatctag gaaaattatt ctataatttc cattactta agacttaatg agacttttaa agcatttttt aacctcctaa gtatcaagta tagaaaaatct tcatggaatt cacaaagtaa tttggaaatt aggttgaac atatctctta tcttacgaaa aaatggtagc attttaaca aaatagaaag ttgcaaggca aatgtttatt taaaagagca ggcaggcgc ggtggctcac gcctgtaac ccagcacttt gggaggctga ggcgggtgga tcacgaggtc agagatcga gaccatcctg gctaacacgg tgaaacccgt ctctactaaa aatgcaaaaa aaattagccg ggcgtggtgg caggcactg tagtcccagc tactcgggag gctgaggcag gagactggcg tgaacccagg aggcggacct ttagtgagc cgagatcgcg ccaactgtgt ccagcctggg caacagagca agactccatc tc MGPRRL1LVA ACFSLCGPLL SAPTRARRPE SKATNATLDP RSFLLRNPD KYEPFWEDEE P KNESGLTEYR LVSINKSSPL QKQLPAFISE DASGYLTSSW LTLFVPSVYT GVFFVSLPLN IMAIIVFILK MKVKKPAVVY MLHLATADVL FVSVLPFKIS YYFSGSDWQF GSELCRFVTA AFYCNMYASI LMTVISIDR FLAVVYPMQS LSWRTLGRAS FTCLAIWALA IAGVVPVLVK EQTIQVPLN ITTCHDVINE TLLEGYYAYY FSAFSAVFFF VPLIISTVCY VSIIRCLSSS AVANRSKKS ALFLSAAVFC IFICFGPTN VLLIAHYSFL SHTSTTEAY PAYLLCVCVS SISSCIDPLI YYYASSEQR YVYSILCKE SSDPSSYNSS GQLMASKMDT CSSNLNNSIY KKLLT </p>	Homo sapiens
325	4734	Thyrotropin Releasing Hormone Receptor	NM_003301	<p> tagcttcaag ccactgaaga tggaaaaaga gacagtcagt gaactgaac aaacacagct A tcagccacga gcagtggtgg ccttagaata ccaggtggtc accatcttac ttgtactcat tatttgggc ctgggcattg taggcaacat catggtagtc ctggttgta tgagaaccaa gcacatgagg acccccacaa actgctacct ggtgagcctg gcagtagctg atctcatggt cttggtggcc gcaggcctcc ccaacataac agacagtatc tacggttctc ggggtctatgg </p>	Homo sapiens

326	4734	Thyrotropin Releasing Hormone Receptor	NP_003292.1	ctatgttgga tgcctctgca ttacttacct ccagattttg ggaattaatg catcctcttg ttcaataaca gcctttacca ttgagaggtg catagcaatc tgtcaccoca tcaaaagccca gtttctctgc acattttcca gagccaaaaa gattatcatc tttgtctggg ctttcacatc tctttactgt atgctctggt tcttcttgct ggatctcaat attagcacct acaaagatgc tattgtgata tcctgtggct acaagatctc caggaattac tactcaccta ttacctaata ggactttggt gtcttttatg ttgtgccaat gatcctggct accgtcctct atggattcat agctagaatc cttttcttaa atccattcc ttcatatcct aaagaaaaact ctaagacatg gaaaaatgat tcaaccatc agaacacaaa tctgaatgta aatacctcta atagatgttt caacagcaca gtatctttcaa ggaagcaggt caccaagatg ctggcagtggt ttgtaattct gtttgcccct ttatggatgc cctacaggac tctagtgtgt gtcaactcat tctctccag tcctttccaa gaaaattggt tttgtctctt ttgcagaatt tgcatttatt tcaacagtg catcaacccg gtgatttaca atctcatgtc ccagaaattc cgtgcagcct tcagaaagct ctgcaactgc agcagaagc caacagagaa acctgctaac tacagtgtgg cctaaataa cagcgtcatc aaggagtcag acctttcag cacagagctt gatgatatca ctgtcaactga cattacctg tctgccaaa aagtgtctt ttgatgacac tgcttggtct ctgaggtatc ctttagccaa agttgattca tgaattagaa gaaaatggat gacaaagaaa ttgagaatct gtgcagtcac caacaaaagg gagaacatgg ccaatagtca tatgtgaaga cagagcagat cagctcttct caatgctcta acaaaccc	4944	Angiotensin II Type 1 Receptor	NM_000685	atccagagct gcctcctcgc caatgattcc agcgcctgac agccaggacc ccaggcagca A gcgagtgaac ggacgtctgg accggcgcgc cgctagcagc tctgccgggc cgcggcggtg atcgatggg agcggctgga gcggaccag gcgagcccg cgacagccg ggacgcgag gcggcgggcg ggagaccgc accagcgag ccggccctcg gcgggacgtg acgcagcgc cgggcgcggg gttgatatt tgacaaattg atctaaaaat gctgggtttt tatctgaata actcactgat gccatcccg aaagtcgga ccagggtgat ttgatatagt gtttgcaaca aatcgacc aggtgatcaa aatgattctc aactcttcta ctgaagatgg tattaaga atccaaagatg attgtcccaa agctggaagg cataattaca tatttgtcat gattcctact ttatacagta tcatctttgt ggtgggaata ttggaaaca gtttggtgtt gatagtcatt tacttttata tgaagctgaa gactgtggcc agtgttttct tttgaaattt agcactggct gacttatgct ttttactgac ttgcccacta tgggtgtctt acacagctat ggaataccgc tgggcccttg gcaattacct atgtaagatt gtttcagcca gcgtcagttt caacctgtac gctagtgtgt ttctactcac gtgtctcagc attgatcgat acctggctat tgttcacca atgaagtccc gccttcgacg caaatgctt gtagccaaag tcacctgcat catcattgg ctgctggcag gcttggccag ttgcccagc ataatccatc gaaatgtatt tttcattgag aacaccaata ttacagtttg tgctttccat tatgagtgccc aaatttcaac ccttcagata	Homo sapiens	Homo sapiens
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328	4944	Angiotensin II Type 1 Receptor	NP_000676.1	<p>gggctgggccc tgacccaaaaa tatactgggt ttccctgtttc cttttctgat cattcttaca agttatactc ttatttggaa ggcctctaaag aaggcttatg aaattcagaa gaacaaaacca agaaatgatg atatttttaa gataattatg gcaattgtgc tttttctttt tttttctgtg attccccacc aaatattcac ttttctggat gtattgattc aactaggcat catacgtgac tgtagaattg cagatattgt ggacacggcc atgacctaca ccatttggat agcttatttt aacaattgcc tgaatctctc tttttatggc ttctcgggga aaaaatttaa aagatatattt ctccagcttc taaaatatat tcccccaaa gccaaatccc actcaaacct tcaacaaaa atgagcacgc tttcctacog cccctcagat aatgtaagct catccacca gaagcctgca ccatgttttg aggttgatg acatgttcga aacctgtcca taaagtaatt ttgtgaaaga aggagcaaga gaacattcct ctgcagcact tcaactacca atgagcattt gctacttttc agaaattgaag gagaaaatgc attatgtgga ctgaaccgac ttttctaaag ctctgaacaa aagcttttct ttccttttgc aacaagacaa agcaaaagcca cattttgcat tagacagatg acggctgctc gaagaacaat gtcagaaact cgatgaatgt gttgatttga gaaattttac tgacagaaat gcaatctccc tagcctgctt ttgtcctgtt attttttatt tccacataaa ggtatttaga atatatataa tctgttagagg agcaaacagga gatgagagtt ccagattgtt ctgtccagtt tccaaaggcc agtaaaagttt tcgtgccggt ttccagctat tagcaactgt gctacacttg cacctggtac tgcacatttt gtacaaagat atgctaaagca gtatcgtca agttgacagat ctttttgtga aattcaacct gtgtcttata ggtttacact gccaaaaaa tgcccgtgaag atggcttatt tgtataatgg tggtactaaa gtcacatata aaagttaaac tacttgtaaa ggtgctgcac tgggtcccaag tagtagtgct ctcctagtag attagtttga tttaatatct gagaaagtga tatagtttgt ggtaaaaaga ttatatatca taaagtatgc cttccctgtt aaaaaaagta tataattctac acatatatat atatgtatat ctatatctct aaactgctgt taattgatta aaactggca aagttatat tactttaaaa taaaaaat ttattgc</p>	Homo sapiens
329	4946	Angiotensin II Type 2 Receptor	NM_000686	<p>MIINSSSTEDG IKRIQDDCPK AGRHNYIFVM IPTLYSIIFV VGIFGNSLVV IVIYFYMKLK P TVASVFLNL ALADLCFLLT LPLMAVYTAM EYRWPFGNYL CKIASASVSF NLYASVFLLT CLSIDRYLAI VHPMKSLRR TMLVAKVTCI IIWLLAGLAS LPALHHRNVF FIENTNITVC AFHYESQNST LPIGLGLTKN ILGFLFPFLI ILTSYTLIWK ALKKAYEIQK NKPRNDDIFK IIMAILVFFF FSWIPHQIFT FLDVLIQLGI IRDCRIADIV DTAMPITICI AYFNNCLNPL FYGLGKKFK RYFLQLLKYI PPKAKSHSNL STKMSTLSYR PSDNVSSSTK KPAPCFEVE acgtccacgc gctgagaga acgagtaagc aagaattcaa agcattctgc agcctgaatt A ttgaaggagt gtgttttagc actaagcaag ctgatttatg ataactgctt taaacttcaa caaccaaagg cataagaact aggagctgct gacatttcaa tatgaaggcc aactccaccc ttgccactac tagcaaaaac attaccagcg gtcttcactt cgggcttggt aacatctctg gcaacaatga gctacacttg aactgttcac agaaaccatc agataagcat tttagatgcaa ttcctattct ttactacatt atattgttaa ttggatttct ggtcaaatatt gtcgtggta cactgttttg ttgtcaaaag ggtcctaaaa aggtttctag catatacatc ttcaacctcg ctgtggctga tttactcctt ttggctactc ttccctctat ggcaacctat tattcttata gatagactg gctctttgga cctgtgatg gcaaaagttt ttgttctttt cttacctga acatgtttgc aagcattttt ttatcacct gcatgagtg tgataggtag caatctgtca tctaccctt tctgtctcaa agaagaaatc cctggcaagc atcttatata gttcccttg</p>	Homo sapiens

330	4946	Angiotensin II Type 2 Receptor	NP_000677.1	<p> ttdgtgtgtat ggctgtgttg tctcattgac caacatttta ttttcgagac gtcagaaacca ttgaataactt agtagtgat gcttgacatta tggctttccc agctgagaaa tatgccaata ggtcagctgg gattgacctt atgaaaaata tcttggtgtt tattatccct ttaataattca tagcaacatg ctatttttga attagaaaaa acttactgaa gacgaatagc tatgggaaga acaggataac ccgtgaccaa gtcctgaaga tggcagctgc tgtgtgtctg gccttcacatca tttgggtgctt tcccttccat gttctgacct tcttggtatg cctggcctgg atgggtgtca ttaatagctg cgaagtata gcagtcattg acctggcact tcttttgcc atcctcttgg gattcaccaa cagctgcgtt aatcogtttc tgtattgttt tgttggaac cggttccaac agaagctccg cagtggtgtt aggtttccaa ttacttggct ccaagggaag agagagagta tgtcttgccg gaaaagcagt tctcttagag aaatggagac ctttgtgtct taaacggaga gcaaaatgca tgtaataaac atggctactt gctttgaggc tcaccagaat ttttttaag tggttttaat aaaaataaa aatttccct aatctttctt gaatcttctg aaaccaaag taactatgtt tatcgtccag tgactttcag gaatgccccat tgtttctga tatgtttgtta caagatttca ttggtgagac atatttaca ctagaagta actggtgata tatctcaaat tgtaattaat aatagattgt gaataatgat ttggggattc agatttctct ttgaacatg cttgtgttc ttgtgggtt ttatatcca tttttatcag gatttctctc tgaaccagaa ccagctttc aactcattg atcatttaca agacaacatt gtaagagaga tgagcacttc taagttgagt atattataat agattagtag tggattatc aggtcttagg catatgcttc tttaaaaacy ctataaatta tattctctt gcatttccact tgagtggagg ttatagttta atctataact acatattgaa tagggctagg aatatagatt aaatcatact cctatgcttt agcttatttt tacagttata gaaagcaaga tgtactataa catagaattg caatctataa tattgtgtg ttcactaac tctgaataag cacttttta aaaaactttct actcatttta atgattgttt aaaggtttct attttctctg atactttttt gaaatcagta aacactgtgt attgtgttaa aatgtaagc tcacttttca tctctttgac tttttagatg tgcgtctttg atataagga cattgatttg atttttatta ttaactgtttt ggttctgggt tgtttcctaa aatatctggg tggcttaaaa aaaaactctt aacttgtaaa aaacccctaa ctggcatagg aaatggtatc cagaatggaa ttttgctaca tgggtgctgg gtgggggcaa agagacccag tcaattacat gtttggtacc aagaaaggaa cctgtcaggg cagtacaaat tgactttgaa aatataacc gtgggggtag ttttacccta tatctataaa cactgtttgt tccagaatct gtatgattct atggagctat tttaaaccaa ttgcaggtct aga MKGSTLATT SKNITSLHF GLVNISGNNE STLNCQKPS DKHLDAIPIL YYIIFVIGFL P VNIVVTILFC CQKPKKVS IYIFNLAVD LLLATLPLW ATYYSYRYDW LFGPVMCKVF GSFLTLNMEA SIFFITCMV DRYQSVIYPF LSQRNPWQA SYIVPLVWCM ACLSSLPTFY FRDVRTIEYL GVNACIMAF PEKQAQWSAG IALMKNILGF IIPLIFIATC YFGIRKHLK TNSYGNRIT RDQVLKMAA VLAFLIWL PHVLTFLDA LAWMGVNSC EVIAVIDLAL PFAILLGFTN SCVNPFLYCF VGNRFQKLR SVFRVPITWL QGKRESMSR KSSSLREMET FVS </p>	Homo sapiens
331	5072	Pyrimidinerg ic Receptor P2Y4	NM_002565	<p> atggccagta cagagtcctc cctgttgaga tccctaggcc tcagcccagg tctctggcagc A agtggagggg agctggactg ttggtttgat gaggatttca agttcatcct gctgctgtg agctatgcag ttgtctttgt gctgggcttg ggccttaacg cccaacccct atggctcttc atcttccgcc tccgaccctg gcatgcaacg gccactaca tgttccacct ggcattgtca </p>	Homo sapiens

332 5072 Pyrimidinerg NP_002556.1
ic Receptor
P2Y4

gacaccttgt atgtgctgtc gctgcccacc ctcatctact attatgcagc ccacaaccac
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MASTESSLLR SLGSPGGS SEVELDCWFD EDFKFIILLPV SYAVVFLVGL GLNAPTLLWF P
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TTVLCHDTRR PEEFDHYVHF SSAVMGLLFG VPCLVTLVY GLMARLYQP LFGSAQSSSR
LRLRTIAW LVFAVCFVP FHITRTIYVL ARLEADCRV LNIWVYKV TRPLASANS
IDPVLVLLTG DKYRRQLRQL CGGKQPRT ASSLALVSL PEDSSCRWAA TPQDSSCSTP
RADRL

Homo
sapiens

333 5117 Vasopressin NM_000706
V1A Receptor

taattgcttg aaggattttt tccagacagg tggctctggaa accttttacc tattaccttc A
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Homo
sapiens

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aatggaaca tgctgtacta aaatatgcag gctgattcc cagaaatata acagaagtta
tatttttaa ggaataatca taaccacct agctttatat ttgtgtgta gttctttaa
tttctattc taacataagt aagacttgat tggtttaaaa gtcacataaa atgcggcaact

Accession	Gene	Protein	Species
334	Vasopressin V1A Receptor	NP_000697.1	Homo sapiens
5117	Vasopressin V1B Receptor	NM_000707	Homo sapiens
335	Vasopressin V1B Receptor	NM_000707	Homo sapiens

336	5118	Vasopressin V1B Receptor	NP_000698.1	<p>ccaccaatgt ggctttccacc atctctatgc ttttgggcaa cctcaacagc tgctgcaacc cctggatcta catgggttc aacagccacc tgttaccgcg gcccttcgct caccttgccct gctgtggggg tccccagccc aggatgcgc ccgggtcttc cgacggcagc ctctcgagcc gccacaccac gctgctgacc cgtccagct gcccgccac cctcagcttc agcctcagcc taacctcag tgggagggcc aggcctgaag agtcaccaag ggacttgag ctggcagatg gggaaggcac cgtgagacc atcatctttt aggaagact cgtggggtc tggtaactgcc cccaggacta gtggaggttc tctgccacc ctaggcactg gaaatgagag ctgggaggggt aagggttggg gttagaggag gccctgtctg aagcagacc aaaaggccc aatgggtccc ctacctggt gtcacagctg cccctagtgt gaggtgccc tcataagctc ccaatctcag acactggcag tcaggggagaa tcaactgcc tgtctccctg gtcctgccc attcataggg tgtccatgca cacatggtgt cccagatcta ggcaggccta ggtggtgct gcttaggggt ccacgggtgg caggaattca gaggtggcc ttgtgccctg gctacctgtc tccattctaa cctgactggc acatctcagc ttaaccagga gaggggagaa gtgaaaaacc gtgaggagga ctctatttgg atcctggatt tgtgtgtgtt gttgtgtgtt ttgttagaga gaa</p> <p>QLGKRSRMH LFVLHLALTD LAVALFQVLP QLLWDITYRF QGPDLLCRAV KYIQVLSMFA STYMLLANTL DRYLAVCHPL RSLQPGQST YLLIAAPWLL AAFSLPQVF IFSLREVIQG SGVLDGWADF GFWGPRAYL TWTTLAIFVL PVTMLTACYS LICHEICKNL KVKTQAWRVG GGGWRTWDRP SPSTIAATTR GLPSRVSSIN TISRAKIRTV KMTFVIVLAY IACWAPFFSV QWWSVWDKNA PDEDSTNVAE TISMLLGNLN SCCNPWIYMG FNSHLLPRPL RHLACCGGPQ PRMRRLSDG SLSSRHITLL TRSSCPATLS LSLSLTSLGR PRPEESPRDL ELADGEGTAE</p>	Homo sapiens
337	5119	Vasopressin V2 Receptor	NM_000054	<p>agaagatcct ggttctctgt catcctgtctg tctgaccatc cctctcaatc ttccctgccc A aggactggcc atactgccac cgcacagctg cacacacgccc aacaggcatc tgccatgctg gcattctctat aagggtctca gtccagagag cctgggccc tgaacttgct cctcaggcag aggctgagtc cgcacatcac ctccaggccc tcagaaacacc tgccccagcc ccaccatgct catggcgtcc accacttccg ctgtgctggt ggacccctct ctgcccagcc tgcccagcaa cagcagccag gagagccac tggacacccg ggacccgctg ctgacccggg cggagctggc gctgctctcc atagtctttg tggctgtggc cctgagcaat ggcctggtgc tggcggccct agctcggcgg ggcggcggg gccactgggc accatacac gtcttcattg gccacttggtg cctggccgac ctggcctggt ctctgttcca agtctgccc cagctggcct ggaaggccac cgaccgcttc cgtgggccag atgcccctgt tcgggcccgtg aagtatctgc agatggtggg catgtatgcc tcctctaca tgatcctggc catgacgctg gaccgcccac gtgccatctg cgtcccatg ctggcgtacc gccatggaag tggggtctac tggaaacggc cgtgtgctagt ggcttgggcc ttctgctcc ttctcagcct gccccagctc ttcatcttgc ccacggcaa cgtggaaggt ggcagcgggg tcaactgactg ctgggctctg tttcgggagc cctggggccc tcgcacctat gtcacctgga ttgcccctgat ggtgttctgt gcacctacc tgggtatcgc cgccctgccag gtgctcatct tccgggagat tcatgccagt ctggtgccag ggccatcaga gaggcctggg gggcgccgca ggggacgccc gacaggcagc cccggtgagg gagccacgt gtcagcagct gtggccaaga ctgtgaggat gacgtagtgt attgtggtcg tctatgtgct gtgctgggca cccttcttcc tgggtcagct gtgggcccgcg tgggacccgg aggcacctct</p>	Homo sapiens

338	5119	Vasopressin V2 Receptor	NP_000045.1	MLMASTTSVAV ALARRGRRGH VGMVASSYMI RNVEGGSGVT SERPGRRRG PLEGAPFVLL ASSSLAKDTS	PGHPSLPSLP WAPIHVFIGH LAMTLDRHRA DCWACFAEPW RRTGSPGEGA MLLASINSCT NPWIYASFSS S	SNSSQERPLD LCCLADLAVL ICRPMLAYRH GRTYVVTWIA HVSAAVAKTV RMTLVIVVVY SVSSELRSL	TRDPLLRAE FQVLPQLAWK GSGAHWNRPV LMVFVAPTGL VLCWAPFFLV CARGRTPPS	LALLSIVFVA ATDRFRGPDA LVAWAFSLL IAACQVLIFR QIWAANDPEA LGPQDESCIT	Homo sapiens
339	5133	Peropsin	NM_006583	gaataagcct ataatttagg aacacaatat taatagttct ttattaaacct cctcagatct tgaatatatt acctgacct tgattctggg ctagttatgc gatcttttgt tgatgtttta gcaatgagtc tcaatgatctg cttttggtga aatcttctac caatgcttgc ccatggatgt acgctatcaa gatcaagtgc tgcttccgtt acttattgct	tcgataatta caacagttca tggtgcaact gggcattctc ggctgttact gtatggaagt tttggaatg ctgccttct agcctggatc ccagatcct gtcttacacc ctgctattac cctcaacaga catgtttctg cccaagaag attctataac catgttcaaa atctcaaac aacactttag agacattgat tgtgcactct catctccttt	tgaaggggtg gactctaaaa tacttgatta attaagtaca gataagggg tggaatttg gcaagcattg gacgtaggga aatggcctgt actggtgcta atgacagtta catgtcacgc gactggtcag gtggcatggg attcctccc ccctgcattt tgtcagactc ccatggctt tcttttgaca cattgtccta ggctgctgta gatgaattag	ttcggatatc ctcggatgg tggaaggtat aggaacttcg tcagtagcat gtgcaggg gattactcac gaagaatgac tttgggcttt cgtgtacct ttgcgataaa tatccattaa atcagataga cccttattc ccatggccat atgtggttc accataaat gctgtgaca ctggaagaat ctgaaataag tttaaatatg tgagagtga agctcctcaa gtgtgtgctt ttaaagggtc	atgtaagaa tcacagactg atcagcaaca aatgcaatta atgtctgctg tatgtctggat gtggaccgat tacatcggt ataagggtggg aaaaatgata cccttgacag accagtact atgtctgtga ttatgggctt ctgtttgcaa tttcggaggg agataattac agaaaaggac agccattta gcacagctcg tgatatatca cttcttctt	Homo sapiens

340	5133	Peropsin	NP_006574.1	ccctattatg gcatgcatta cactgtactg atgaccttta acttgccctg ctcc	Homo sapiens
				MLRNNLGNSS DSKNEDGSVF SQTEHNIVAT YLIMAGMISI ISNIIVLGIF IKYKELRTPT P	
				NATIIINLAVT DIGVSSIGYP MSAASDLYGS WKFGYAGCQV YAGLNIFFGM ASIGLLTVA	
				VDRYLTICLP DVGRMTTNT YIGLILGAWI NGLFWALMPI IGWASYAPDP TGATCTINWR	
				KNDRSFVSYT MTVIAINFIV PLTVMEYCYI HVTLSIKHHT TSDCTESLNR DWSDDIDVTK	
				MSVIMICMFL VAWSPYSIVC LWASFGDPKK IPPPMALIIAP LFAKSTTFYN PCIYVVANKK	
				FRRAMLAMFK CQTHQTMPVT SILPMDVSNQ PLASGR	
341	5519	Brain-Specific Angiogenesis Inhibitor 1	NM_001702	ggactttaga agccgtgtgt gacctctctg tcacctgaag cggggccctc tccatccca A	Homo sapiens
				cccttgcccc gctccctctg cccacccggg ccggccctgc ccgcgcggg accctggcat	
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[illegible]

343	5520	Brain-Specific Angiogenesis Inhibitor 2	NM_001703	SELSRAQEKALDTSYVILPTATATLRPKPKPEPKYSIHID QMPQTRLIHL STAPEASLPA RSPPSRPPSGGPPEAPPAQ PPPPPPPPP PPQPLPPPP NLEPAPPSLG DPGEPAHPG PSTGPSTKNE NVATLSVSSL ERRKSRYAEL DFEKIMHTRK RHQDMFQDLN RKLQHAAEKD KEVLGPDSPK EKQQTENKRP WESLRKAHGT FTWVKKELEP LQSPLELRS VEWERSGATI PLVGQDIIDL QTEV	gcccgcgccc agagcgggag cctcggccct ccgcgcggct gcagctacct accctgcgcc A cgccagggtc ccgacttag gactggcaaa ctctgcgccc gtggccgccc ccgcccagcc cgccccccg tccgtctgtc gacggcgccc aggaatcca cagcagtgat acatgtgacg tccacactga cagtgcctc ctgtgggcat ggctcaggtt gtgcgagtt cctggcacac tggtgtaac tccgcccctt tctctccctc tcagtaaac agattacgc ggtgacatgc ctcacagctg atcacgacac acggggatgg agagcaagag ttatggagaa tacaggttgg atgggcaagg gacataggat gacccagcc tgccccctct tactgtctgt gattctgtcc ctgcgcctgg ccaccgctt cgaccccgcc ccagtgctt gctctgccct ggcccggtt gtgctctacg gggcctctc gctgcaggac ctcttctc ccatcgccct gggctgtcc tggaacctgg agaacctga cccaccaaag tactccctct acctgcgtt caaccgccag gagcagggtg gcgcacctt tggcccccg ctgctgccc tggaccacta cctggtcaac tttacctgcc tgcggcctag cccgaggag gcggtgccc agcgagatc agagtgggg cgccagaag aggaggagc agaggcgga cgggggttg agctgtgcag cggctcagc ccctttacct tctgcactt cgacaagac tctgtgcagc tgcgtgtgt cagagttgt tccgaggccc cgcgcctgt ggcgcctgt cccctagctt tccgttgtt cagagttgt ctcatcaaca acaacaact tagccaatt acctgtgtg tgcctgtccg ctgagtgag gagtggtgcc gcgtgcgg cagggcctgc ggttgtgtc agccaggctg cagctgccct ggagaggcgg ggcgggtc caccaccacc acatctccag gccctcctgc tgccccaccc ctgtccaatg cctgtgtcc cgggggccc cccccactg ctgaggccga tttgcactcg gggagcagca atgatctgt cacaaccgag atgagatag gtgagagacc ggaagagga ccgaagtga aaaccagt gccaggtct gcagatgagc ctgggtctata catggcgag acaggcgacc cggcggtga ggaagtgtcc cgtgtgagc tgtgttccct gacgtgtggg cagggtctgc agtgcgag ccgtcctgt gtgtcctcc ctatgggac cctgtgcagc ggccccctgc gggagaccag gccctgcaac aattcagcca cctgcccagt gcacggcgtg tggaaggagt ggggtctc gagcctgtgc tcccgagct cggggcggg gtcccggagc cggatgcgga cctgcgtgc ccccgagcag ggcggcaagg cctgcgaggg tccgtgagctg cagactaagc tctgcagtat ggtgcctgc cgggtggaag gccagtgggt agaattgggt ccctggggcc catgtccac gtctgtgccc aatgggacc aacagcgag ccggaagtgc agcgtggcgg gcccagcctg ggcacatgc acgggtgccc tcaactgacac ccgggagtg agcaacctcg agtccccggc cactgatgc aagtggggc catggaatgc gtggagcctg tgctctaaga cgtgtgacac aggtgggag cgcgcttcc gcattgtcca ggcacgggc acgcagggtt accctgcga gggcaccgga gaggagtgta agcctgttag tgagaagagg tgtccagcct tccatgagat gtgcaggat gactagctga tgcgtatgac gtggaagaa gcagctgctg gcgagatcat ctacaacaag tgccccccag atgcctcagg gtctgccag gcgcgtgtc tccctcagtc ccaaggcgtg gcgtactggg ggctgcccag ctttgcctgc tgcatctccc atgagtaccg ctactgtat ctgtcactta gggagcacct ggccaagggg	Homo sapiens
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				<p>MTFACPLLLS VILSLRLATA FDPAPSACSA LASGVLYGAF SLQDLFFIA SGCSWTLENP P</p> <p>DPTKYSLYLR FNRQEQVCAH FAPRLPLDH YLVNFTCLRP SPEEAVAQAE SEVGRPEEEE</p> <p>AEAAAGLELC SGSGPFTFLH FDKNFVQLCL SAEPSEAPRL LAPAALAFRE VEVILLINNN</p> <p>SSQFTCGVLC RWSEECGRAA GRACGEAQP G CSCPGEAGAG STTTTSPGP AAHTLSNALV</p> <p>PGGPAPPAEA DLHSGSSNDL FTTEMRYGEE PEEEPKVKTQ WPSADEPGL YNAQTGDPA</p> <p>EWSPWSVCS LTCGQGLQVR TRSCVSSPYG TLCSGPLRET RPCNNSATCP VHGVWEEWGS</p> <p>WLSCSRSCGR GSRSRMRTCV PPQHGKACE GPELQTKLCS MAACPVEGQW LEWGPWGPCS</p> <p>TSCANGTQQR SRKCSVAGPA WATCTGALTD TRECSNLECP ATDSKWGPWN AWSICSKTCD</p> <p>TGWQRFRMC QATGTQGYPC EGTGEEVKPC SEKRCPAFHE MCRDEYVMLM TWKKAAGEI</p> <p>IYNKCPPNAS GSASRRCLLS AQGVAYWGLP SFARCISHEY RYLYLSLREH LAKQRMLAG</p> <p>EGMSQVVRSL QELLARITYY SGDLFSDVI LRNVDTFKR ATYVPSADDV QRFQVVSFM</p> <p>VDAENKEKWD DAQVSPGSV HLLRVDEFI HLVGDALKAF QSSLIVTDNL VISIQREPVS</p> <p>AVSSDITFPM RRRGMKDWV RHSEDRLELP KEVLSLSSPG KPATSGAAGS PGRGRPGTV</p> <p>PPGPGRSHQR LLPADPDESS YFVIGAVLYR TLGLILPPPR PPLAVTSRVM TVTVRPPTQP</p> <p>PAEPLITVEL SYIINGTDP HCASWDYSRA DASSGDWDETE NCQTLETQAA HTRCQCQHL</p> <p>TEAVLAQPPK DLTLELAGSP SVPLVIGCAV SCMALLTLLA IYAAFWRFK SERSIILLNF</p> <p>CLSILASNIL ILVGQSRVLS KGVCTMTAAF LHFFFLSSFC WVLTEAWQSY LAVIGRMRTR</p> <p>LVRKRFLCLG WGLPALVAV SVGFTRTKGY GTSSYCWLSL EGGLELYAFVG PAAVIVLVNM</p> <p>LIGIIVFNKL MARDGISDKS KKQAGSERC PWASILLPCS ACGAVPSPLL SSASARNAMA</p> <p>SLWSSCVVLP LLALTWMSAV LAMTDRRSVL FQALFAVENS AQGFVITAVH CFLREVQDV</p> <p>VKQCMGVCR A DESEDSPDSC KNGQLQILD FEKDVDLACQ TVLFKEVNTC NPSTITGTL</p> <p>RLSLDEDEEP KSLVGPPEG LSFSPLPGNI LVPMAASPL GEPPPPQEAN PVVMCGEGGL</p> <p>RQLDLTWLRP TEPGSEGDY VLPRTLSLQ PGSGGGGGED APRARPEGTP RRAAKTVAHT</p> <p>EGYPSFLSVD HSGGLGPGAY GSLQNPYGMT FQPPPTPSA RQVPEPERS RTMPRTVPGS</p> <p>TMKMSGLERK KLRYSDDLDFE VMHTRKRHSE LYHELNQKFH TFDYRSQST AKREKRSVS</p> <p>SGGAAERSVC TDKPSPGERP SLSQHRRHQ S WSTFKSMTLG SLPPKPRERL TLHRAAAWEP</p> <p>TEPPDGDFTQ EV</p>	

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Homo sapiens

P

NP_001695.1

Brain-Specific
Angiogenesis
Inhibitor 3

5521

346

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Homo sapiens

A

NM_006564

SIV/HIV
Receptor
BONZO

6031

347

348	6031	SIV/HIV Receptor BONZO	NP_006555.1	<p> aattctgcaca agtctcatatg tgggttaccat gacgaggcaca ttttccactgt ggtttcttgc accagatga cactggggtt cttcttgcca ctgctcacca tgattgtctg ctattcagtc ataatcaaaa cactgcttca tgctggaggc ttccagaagc acagatctct aaagatcatc ttcctggtag tggctgtgtt cctgctgacc cagatgcctt caacctcat gaagttcatc cgcagcacac actgggaata ctatgccatg accagcttc ctatgacct catggtgcaca gaggccatcg cataccttg ggcctgcctt aacctgttg aaggacattg ttgacctccc ttaccttggg aagtttcgaa agaacttctg gaaacttctg aacctgttg aaggacattg ttgacctccc ttaccttggg gtctcacatc aatggaaatc ttctgaggac aattccaaga ctttttctgc ctcccacaat gtggaggcca ccagcatgtt ccagttatag gccttgccag ggtttcgaga agctgctctg gaatttgcaa gtcattgctg tgccctcttg atgtggtgag gcaggctttg tttatagctt gcgcattctc atggagaagt tatcagacac tctggctggt ttggaatgct tcttctcagg catgaacatg tactgttctc ttcttgaaca ctcatgctga aagcccaagt aggggtctc aaatttttaa ggactttcct tcttccatct ccaagaatgc tgaaccaag ggggatgaca tgtgactcct atgatctcag gttctccttg attggaactg gggctgaagg ttgaagaggt gagcacggcc aacaaagctg ttgatggtag gtggcacact ggggtgccc aa gctcagaagg ctcttctgac tactgggcaa agagtgtaga tcagagcagc agtgaacaca agtctggca ccaccaggca cctcacagaa atgagatcag gctctgcctc acctggggc ttgacttttg tataggtaga tgttcagatt gctttgatta atccagaata actagcacca gggactatga atgggcaaaa ctgaattata agaggctgat aattccagtg gtccatggaa tgcttgaaaa atgtgcaaaa cagcgtttaa gactgtaatg aatcaagca gcatttctga agtggactct ttggtggctt tgcattttaa aaatgaat ttccaatgtc tgccacacaa acgtatgtaa atgtatatc ccacacat acacacatat gtcatatatt actagcatat gagtctcata gctaagaaat aaactgtta agtctccaa act </p>	Homo sapiens
349	6204	Lysophosphat idic Acid Receptor Edg4	NM_004720	<p> KLKVDIGCLP YLGVSHQWKS SEDNSKTFSA SHNVEATSMF QL gcccagatgg tcatcatggg ccagtgtctac tacaacgaga ccatcggtt cttctataac A aacagtggca aagagctcag ctcccactgg cggcccaagg atgtggtcgt ggtggcactg gggtgaccg tcagcgtgct ggtgctgctg accaatctgc tggtcatagc agccatcgcc tccaaaccgc gcttccacca gcccatctac tacctgctcg gcaatctggc cgcggctgac ctcttcgagg gcgtggccta cctcttctc atgttcaca ctggtcccc cacaagccccg ctttcactg agggctggtt cctgcggcag ggttcctgg acacaagcct cactgctcg gtggccacac tgctggccat cgcctgggag cggcacccga gtgtgatggc cgtgcagctg cacagccgc tgccccgtgg ccgcgtggtc atgtcattg tgggctgtg ggtggctgccc ctgggacctg ggctgctgccc tgccccactc tggcactgccc tctgtgccc ggaccgctgc tcacgcattg caccctgct cagccgctcc tatttggccg tctgggctct gtgagacctg cttgtcttcc tgctcatggt ggctgtgtac acccgcat tcttctacgt gcggcgccga gtgcagcgca tggcagagca tgtcagctgc caccctgct accgagagac cagctcagc </p>	Homo sapiens

350	6204	Lysophosphat idic Acid Receptor Edg4	NP_004711.2	350	ctgtgcaaga ctgtgtgcat catcctgggg gcgttcgtgg tctgctggac accaggccacg gtgtactac tctgtactg ttaggctgt gactgctga atgtcctggc tgtagaaaag tacttctac tgttggcga ggcgaacta ctgtgctga atgtcctgta ctctggcga gatgtgaga tgcgcccgc ctccgcgc ctctctgct gcgctgct ccgccagctc accgcgagt ctgtccacta tacatctct gcccgaggag gtgccagcac tgcacatcatg cttcccgaga acggccacc actgatggac tccaccttt agctacctg aacttcagcg gtacgcgga agcaacaaat ccacagcccc tgatgactg tgggtgctcc tggctcaacc caaccaacag gactgactg	6204	TVSVLVLLTN LLVIAAIASN P LEGWFLRQGL LDTSLTASVA LGLLPAHSWH CLCALDRCSR RYRETTLSIV NAAVYSCRDA	Homo sapiens
351	6213	C-C Chemokine Receptor 5	NM_000579	351	ctgtgcaaga ctgtgtgcat catcctgggg gcgttcgtgg tctgctggac accaggccacg gtgtactac tctgtactg ttaggctgt gactgctga atgtcctggc tgtagaaaag tacttctac tgttggcga ggcgaacta ctgtgctga atgtcctgta ctctggcga gatgtgaga tgcgcccgc ctccgcgc ctctctgct gcgctgct ccgccagctc accgcgagt ctgtccacta tacatctct gcccgaggag gtgccagcac tgcacatcatg cttcccgaga acggccacc actgatggac tccaccttt agctacctg aacttcagcg gtacgcgga agcaacaaat ccacagcccc tgatgactg tgggtgctcc tggctcaacc caaccaacag gactgactg	6213	GKELSSHWRP KDVVVVALGL TVSVLVLLTN LLVIAAIASN P AGVAYLFMF HTGPTARLS LEGWFLRQGL LDTSLTASVA IVGVWVAALG LGLLPAHSWH CLCALDRCSR RMAEHVSCHP RYRETTLSIV ENGLPLMDST L	Homo sapiens
351	6213	C-C Chemokine Receptor 5	NM_000579	351	ctgtgcaaga ctgtgtgcat catcctgggg gcgttcgtgg tctgctggac accaggccacg gtgtactac tctgtactg ttaggctgt gactgctga atgtcctggc tgtagaaaag tacttctac tgttggcga ggcgaacta ctgtgctga atgtcctgta ctctggcga gatgtgaga tgcgcccgc ctccgcgc ctctctgct gcgctgct ccgccagctc accgcgagt ctgtccacta tacatctct gcccgaggag gtgccagcac tgcacatcatg cttcccgaga acggccacc actgatggac tccaccttt agctacctg aacttcagcg gtacgcgga agcaacaaat ccacagcccc tgatgactg tgggtgctcc tggctcaacc caaccaacag gactgactg	6213	GKELSSHWRP KDVVVVALGL TVSVLVLLTN LLVIAAIASN P AGVAYLFMF HTGPTARLS LEGWFLRQGL LDTSLTASVA IVGVWVAALG LGLLPAHSWH CLCALDRCSR RMAEHVSCHP RYRETTLSIV ENGLPLMDST L	Homo sapiens

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 MIVYFLFWAP YNIVLLNLT QEFFGLNCS SSNRDQAMQ VTETLGMTHC CINPIYAFV
 GEKFRNYLLV FFQKHIKRF CKCCSIFQOE APERASSVYT RSTGEQEISV GL

353	6363	Chemokine (C-C motif) Receptor- like 2 (CCRL2)	NM_003956	<p>tctgtctctg ggaagtggg cacagttta aagaaatgtt tatttcagtc ttctgaaata A</p> <p>gggaattact ctggctaaaa tgtagtccca gaaaggaaa gtgggctgt atgaatccag</p> <p>gtccagtttg ttgttctctc caggaagaag cagctgtcgg aggggaaaat catctcccat</p> <p>ttctccacag ggcagctctga agatggccaa ttacacgctg gcaccagagg atgaatatga</p> <p>tgctctcata gaagtggaac tggagagcga tggagcagag caatgtgaca agtatgacgc</p> <p>ccaggcactc tcagccagc tgggtccatc actctgtct cctgtgttg tgatcgtgtg</p> <p>cctggacaat ctctgggttg tgcttatctc tggcagtttc taacttgtgt tcttgctta ccctgccctt</p> <p>aaatatctat ctcttaaaact tggcagtttc taacttgtgt tcttgctta ccctgccctt</p> <p>ctgggctcat gctggggggg atccccatgt taaaattctc attggactgt acttcgtggg</p> <p>cctgtacagt gagacatttt tcaattgctt tctgactgtg caaaggatcc tagtgttttt</p> <p>gcacaagggc aactttttct cagccaggag gagggtgccc tgtggcatca ttacaagtgt</p> <p>cctggcatgg gtaacagcca tctggccac ttgtcctgaa tacgtggttt ataaacctca</p> <p>gatggaagac cagaaataca agtgtgcat tagcagaact ccttctcgc cagctgatga</p> <p>gacattctgg aagcattttc tgacttttaa atgaacatt tcggttcttg tcttccccct</p> <p>attatatttt acatttctct atgtgcaat gagaaaaa ctaaggttca gggagcagag</p> <p>gtatagcctt ttcaagcttg ttttgccat aatggtagtc ttccttctga tgtggcgcc</p> <p>ctacaatatt gcatttttcc tgtccacttt caaagaacac ttctccctga gtgactgcaa</p> <p>gagcagctac aatctggaca aaagtgttca catcactaaa ctcactgcca ccacctg</p> <p>ctgcatcaac cctctcctgt atgcgtttct tgatgggaca tttagcaaat acctctgccg</p> <p>ctgtttccat ctgcgtagta acaccccat tcaacccagg gggcagctcg cacaaaggac</p> <p>atcgagggaa gaacctgacc attccaccga agtgtaaat agcatccacc aaatgaaga</p> <p>agaataaaca tggattttca tctttctgca ttatttcagt taaattttct acacatttgt</p> <p>atcaaaaatc ggatacagga agaaaagga gaggtagct aacatttgc aagcactgaa</p> <p>tttgtctcag gcacctgca aggtctttta caaacgtgag ctctctgcc tctaccact</p> <p>tgtccatagt tggatagga ctagtctcat ttctctgaga agaaaactaa ggcgcgaaa</p> <p>tttgtctaag atcacataac taggaagtgg cagaactgat tctccagccc tggtagcatt</p> <p>tgctcagagc ctacgcttg tccagaacat caaactccaa accctgggga caaacgacat</p> <p>gaaataaatg tattttaaaa catct</p>	Homo sapiens
354	6363	Chemokine (C-C motif) Receptor- like 2 (CCRL2)	NP_003956.1	<p>LILVYKGLK RVENIYLNL AVSNLCFLT LPFWAHAGGD PMCKILIGLY FVGLYSETFF</p> <p>NCLLTQRYL VFLHKGFFS ARRRVPCGII TSVLAWVTAI LATLPEYVYV KPQMEDQKYK</p> <p>CAFSRTPFLP ADETFWKHFL TLKMNISVLV LPLFITFLY VQMRKTLRFR EQRYSLFKLV</p> <p>FAIMVFLIM WAPYNIAFFL STFKEHFSLS DCKSSYNLDK SVHITKLIAT THCCINPLLY</p> <p>AFLDGFISKY LCRCFHLRSN TPLQPRGQSA QGTSREEPDH STEV</p> <p>atgcgagccc cgggcgcgct cctcgcgggc atgtcgcggc tactgcttct gctactgctc A</p> <p>aaggtgtctg ctctctctgc cctcgcgggc gcccctgcgt ccagaaaaga aacttgtctg</p> <p>ggggagagct gtgcacctac agtgatccag cgcgcgggca gggacgcctg gggaccggga</p> <p>aattctgcaa gagacgttct gcgagcccca gacccaggag aggagcaggg ggcagcgttt</p> <p>cttgccggac cctcctggga cctgcggcg gcgccggggt gtgacccggc tgcagggcaga</p> <p>ggggcgaggg cgtcggcagc cggacccccg ggaactccaa ccaggccacc tggccccctgg</p> <p>aggtggaaaag gtgctcgggg tccaggagcct tctgaaactt tggggagagg gaacccccag</p>	Homo sapiens
355	6446	Pael Receptor (GPR37)	NM_005302		Homo sapiens

356	6446	Pael Receptor (GPR37)	NP_005293.1	gcccctccagc tcttctctca gatctccagag gaggaagaga aggtgtcccag aggcgctggc atttccgggc gtaccagga gcagagtgtg aagacagtcc ccggagccag cgatcttttt tactggccaa ggagagccgg gaaactccag ggttcccacc acaagcccct gtccaagacg gccaatggac tggcggggca cgaaggggtg acaattgcac tccggggccg ggcgtgggccc cagaatggat ccttgggtga aggaatccat gactccgggg gtcccggccg gggaaacagc acgaaccggc gtgtgagact gaagaacccc tcttaccggc tgacccagga gtccatagga gcctacggcg tcatgtgtct gtccgtggtg atcttcggga ccggcatcat tggcaacctg gcggtgatgt gcctcgtgtg ccacaactac tacatcgga gcacttccaa ctcctcttgg gccaaacctg ccttctggga ctttctcacc atcttcttct gcctccgct ggtcatcttcc cacgagctga ccaagaagt gctgctggag gacttctcct gcaagatcgt gccctatata gaggtcgctt ctctgggagt caccaccttc acctatgtg ctctgtgcat agaccgcttc cgtgctgcca ccaacgtaca gatgtactac gaaatgatcg aaaactgttc ctcaacaact gccaaacttg ctgttatatg ggtgggagct ctattgttag cacttccaga agttgttctc cgccagctga gcaaggagga ttgggggtt agtggccgag ctccggcaga aaggtgcatt attaagatct ctctgattt accagacacc atctatgttc tagccctcac ctacgacagt gcgagactgt ggtggtattt tggctgttac tttgttttgc ccaagctttt caccatcacc tgctctctag tgactgcgag gaaaatccgc aaagcagaga aagcctgtac ccgaggggaat aaacggcaga ttcaactaga gactcagatg aactgtacag tagtggcact gaccatttta tatggatttt gcattattcc tgaaaatata tgcaacattg ttactgccta catggctaca ggggtttcac agcagacaat ggacctcctt aatatcata gccagttcct tttgttcttt aagtcctgtg tcacccagct cctccttttc tgtctctgca aaccttcag tcgggaccttc atggagtgtc gctgctgttg ctgtgaggaa tgcattcaga agtcttcaac ggtgaccagt gatgacaatg acaacagta caccacggaa ctggaactct cgcctttcag taccatacgc cgtgaaatgt ccacttttgc ttctgtcga actcattgct ga NSARDVLAR APREEQAAF LKVSASSALGV APASRNCTCL GESCAPTVIQ RRGDAMGPG P RWKGARGQEP SETLGRGNPT ALQLFLQISE EEEKGPRGAG ISGRSQEQSV KTVPGASDLF YWPRRAGKLQ GSHKPLSKT ANGLAGHEGW TIALPGRALA QNGSLGEGIH EPGPRRGNS TNRRVRLKNP FYPLTQESYG AYAVMCLSVV IFGTGIIGNL AVMCIVCHNY YMRISNSLL ANLAFWDFLI IFFCLPLVIF HELTKKWLLE DFCKIVPYI EVASLGVTTF TLCAICIDRF RAATNVQMY EMIENTSST AKLAVIWVGA LLLALPEVVL RQLSKEDLGF SGRAPAERICI IKISPDLPT IYVLALTYDS ARLWYFQCY FCLPTLFTIT CSLVTARKIR KAEKACTRGN KRQIQLESQM NCTVVALTIL YGFCIIIPENI CNIVTAYMAT GVSQQTMDDL NIISQFLFF KSCVTPVLLF CICKPFSRAF MECCCCCEE CIOKSSTVTS DDNDNEYTTE LELSPFSTIR REMSTFASVG THC	Homo sapiens
357	6536	Putative Neurotransmi tter Receptor (PNR)	NM_003967	atgagagctg tcttcatcca aggtgctgaa gagcacccctg cggcattctg ctaccaggtg A aatgggctctt tcccaggac agtacatact ctgggcatcc agttggtcat ctaccagacc tgtgcagcag gcactgctgat tctcgtgcta gggaaatgtat ttgtggcatt tgctgtgtcc tacttcaaa cgtttcacac gccaccacaac ttctgtgtgc tctccctggc cctggctgac atgtttctgg gtctgctggt gctgccccctc agcaccattc gctcagtga gactgctgg ttcttcgggg acttctctctg ccgcctgcac acctacatcg acacctctt ctgcctcacc	Homo sapiens

358	6536	Putative Neurotransmi- tter Receptor (PNR)	NP_003958.1	<p>agccagaagg tcttctcacc gcagacacgc actgttgatt tgtaccaaga atga</p> <p>MRVFIQGA EHPAFCYQV NGSCPRTVHT LGIQLVIYLT CAAGMLIIVL GNVFVAFVAVS P</p> <p>YFKALHTPTN FLLLSLALAD MFLGLLVLP STIRSVESCW FEGDFLCRLH TYLDLFLCLT</p> <p>SIFHLCFISI DRHCAICDPL LYPKFTVRV ALRYILAGWG VPAAYTSLFL YTDVVETRLS</p> <p>QWLEEMPCVG SCQLLNKFW GWLNFPLEFV PCLIMISLYV KIFVATRQA QQITLTKSL</p> <p>AGAAKHERKA AKTLGIIVGI YLLCWLPTI DTWVDSLHF ITPPLVFDIF IWFAYFNSAC</p> <p>NPIIYVFSYQ WFRKALKLTL SQKFSPQTR TVDLYQE</p>	Homo sapiens
359	6777	G Protein- Coupled Receptor TM7SF1	NM_003272	<p>cggcgcgatg cgcggagacc ccgcggggg cggcgggcgc cgtgagcccc gatgagggccc A</p> <p>gaggtcccc ggcgcgcgcg cagcgcccc ggcgcgatgg agacccgcgc gtgggaccca</p> <p>gccgcgaacg actcgcgcgc gccacgcgcg acccgcgcgc tgcccccta cgtgaagctt</p> <p>ggcctcaccg tgcgtacac cgtgttctac gcgctgctct tcgtgttcac ctacgtgcag</p> <p>ctcgtgctgg tgctgcgta ccgcacaaag cggctcagct accagagcgt ctctctctt</p> <p>ctcgcctct cctgggcctc cctgcggacc gtctctctct cctctactt caagacttc</p> <p>gtggcgccca attcgcgcgc cccctcgcgc tctcgtgcgc tctactgctt cccgtgtgctc</p> <p>ctgcagtttt tcacctcac gctgatgaac ttgtacttca cgcaggtgat ttccaagcc</p> <p>aagtcaaaat attctccaga attactcaaa taccgggtgc cctctacct ggccctccctc</p> <p>ttcatcagcc ttgttttctt gttggtgaat ttaacctgtg ctgtgctggt aaagacggga</p> <p>aattgggaga ggaaggttat cgtctctgtg cgagtgccca ttaatgacac gctcttcgtg</p> <p>ctgtgtgcgc tctctctctc catctgtctc tacaataatc ctaagatgct cttagccaac</p> <p>attacttgg agtccaaagg ctcctccgtg tgcgaagtga ctgccatcgg tgcaccgtg</p> <p>atactgcttt acacctctcg ggcctgctac acctgttca tctgtcatt ttctcagaac</p> <p>aagagcgtcc attcctttga ttatgactgg tacaatgtat cagaccaggc agatttgaag</p> <p>aatcagctgg gagatgctgg atactgatta ttggagtggt tgttatttgt ttgggaactc</p> <p>ttacctacca ccttagtctg ttatttcttc caggttagaa atctacaaa ggaccttacc</p> <p>aacctggaa tggccccag ccatgattc agtccagat cttatttctt tgacaacctt</p> <p>cgaagatatg acagtgatga tgaccttgc tggaaacatt cccctcaggg acttcaggga</p> <p>ggttttgcct cagattacta tgatttggga caacaaacta acagcttctt ggcacaagca</p> <p>ggaacttgc aagactcaac ttgtgatcct gacaaaccaa gccttgggtta gcatcagta</p> <p>acagttttat ggacgattcc tcagatgaaa agcttcagaa agcatagtg acagctgaat</p> <p>tttagggca ctttctcta agaaatagaa cttgattttt attgttaca ggttccaat</p> <p>ggcccatag gaataagcaa taatgtagac tgataaacc ttattttagt actaaagagg</p>	Homo sapiens

360	6777	G Protein- Coupled Receptor TM7SF1	NP_003263.1	MRPERPRRG YVQLWLVLRY PVCIQFFTLT KTGNWERKVI VTVILLYTSR WELLPTTLVY LQGGFAPDYY	atttcagtggt ttgtataact ctgcaatcat tatatggtct ttaggtcact ttgacaaact agactgtaag ctcttaagtt taatgataag ctcctctgct	gtataattta taataataa gttgtagttt aatagttttt taggtcact agccaattgc gtctttagag ttgcccaga tgataacat atgttcac	aactttttta tgctaaagta gcacagagta tgactttttt ccgattctga aactccagtg actggtact cttttcagta taaaaatga gctgacttat	agaaaatctg tactaggggt ttatgcataa ggactaaagt gtgccacatt ttgataatta aaggttcagg ccttaggttc ggcgctaat cctattaaac	tacttttata tttttttctt tttactttta attccacaaa gtagactcc aaatgaaaatg ccttaggttc ggcgctaat cctattaaac	Homo sapiens
361	6853	Purinergic Receptor P2Y11	NM_002566	atggatcgag agtggtgtcc gccagcaatg gccgtggtct ccgctggccg ctggagcgct agcctcaacc aagcacgcct acactcagct agggccgagg gcgtatagcc gcctacggcg ctgcgtgtgg tacacatca agctttgcag caggtgatgc gcagtgccca ccagaggacg ccgtcacagc	gtgccaaagtc aggggagctt gccctggccct tctctgtcca cctacctcta tctctttcac gctacctggg gggcccgtgag tctcccacct cctgcataca tggtgctggc ccctcgggcg cagcgttggg tgccgttggg acatagccca ggggcctcat gcctgggctg ccaagagcac cccagtcctg	ctgcccctgcc cctgtggccc gtaccgtctc gctggcagtc tcccccaag ctgcaacctg cctctgtcac cgctgcgggc cgtgcctctg gaagaggccg gtgtctgggg ggggttgggc ggccgtgcta ggccagtggg caacgtggat ggccacagca ggggcctcat ctgctgcccga cgaagagcac tggtgctggc tgagctgagc	caactcttgg atactggtgg agcatccgga agcacctgc cactggcgct ctgggcagcg cccttcttcg tggtcctctg cgccctctg cagcaggggg acagcagacc tgccgcccgc cgagccccag gtggccctct gctcggcggc ggccctggag tctgtgtccc gactgccccg tggtcagggg ctgcccctca caatga	cagctgcga ttgagttcct agcagcccc tctgcgtct atggggaggc tcactttcat cccgaagcca cgccctgct cgccctgct cgcccaactg acgggctggc ggcctacaga cgctgctgct gcatgactgt gcagcagaa gtggccctct acgccagctc gctggagcac tgggggcccta accctctact gctacatggcc gctacagggg atgccacagc cgccccctaaa	cgacaaaactc ggtggccgtg atggcacccc gacgctgccc cgctgcccgc cactctgcat cctgcgaccc ggccatgccc cagcgtggcc ggcctacaga cagctggca ggccgagaa ctatgtgccc cgctgcccgc cgtgggctac ctacatggcc cagctggaa cgccccctaaa	Homo sapiens
362	6853	Purinergic Receptor P2Y11	NP_002557.1	MDRGAKSCPA AVFVSQGLAV SLNRYLGIVH RPEACIKCLG LRVAALVASG	NFLAADDKL SDLLCALTL PFFARSHLRP TADHGLAAYR VALYASSYVP	SGFQGDFLWP PLAAYLYPPK KHAWAVSAG AYSLVLGLG YHIMRVNLVD	ILVVEFLVAV HWRYGEAACR WVLAALLAMP CGLPLLLTLA ARRRWSTRCP	ASNGLALYRE LERFLFTCNL TLFSHLKRP AYGALGRAVL SEADIAQATA	SIRKQRPWHP LGSVIFITCI QQGAGNCSPA RSPGMTVAEK ALELGPYVGY	Homo sapiens

363	6921	G Protein- Coupled Receptor GPR39	NM_001508	atggcttcac ccagcctccc gggcagtgac tgctcccaaa tcattgatca cagtcatgtc A cccaggtttg aggtggccac ctggatcaaa atcacccctta ttctggtgta cctgatcatc ttcgtgatgg gccttctggg gaacagcgcc accattcggg tcacccaggt gctgcagaag aaaggatact tgcagaagga ggtgacagac cacatggtga gtttggcttg ctcggacatc ttggtgttcc tcatcggcat gccatggag ttctacagca tcacttgaa tccctgacc acgtccagct acacccctgc ctgcaagctg cacactttcc tcttcgaggc ctgcagctac gtacagctgc tgcacgtgct gacactcagc tttagcgcgt acatcgccat ctgtcacccc ttcagggtaca agcgtgtgct gggacccttc caggtgaagc tgctgattgg ctctgtctgg gtcacctcgg cctgggtggc actgcccctg ctgtttgcca tgggtactga gtacccctg gtgaacgtgc ccagccaccg ggtctcact tgcaaccgct ccagcaccg ccaccacgag cagcccgaga cctccaatat gtccatctgt accaacctct ccagccgctg gaccgtgttc cagtcacgca tcttcggcgc ctctgtggtc tacctcgtgg tctgtctctc cgtagccttc atgtgctgga acatgatgca ggtgctcatg aaaagccaga aggctcgtct ggccgggggc acgcggcctc cgcagctgag gaagtcggag agcgaagaga gcaggaccgc caggaggcag accatcatct tctgaggtc gattgtgtg acattggcgg tatgctggat gcccaaccag attcggagga tcatggctgc ggcacaccc aagcacgact ggacgaggtc ctacttcgg gcgtacatga tctcctccc ctctcggag acgtttttct acctcagctc ggtcatcaac ccgctcctgt acacggtgct ctgcagcagc ttctcggcggg tgttcgtgca ggtgctgtgc tgccgctgt cgctgacga cgccaaccac gagaagcgc cgtgtgctc tcgctgactcc accacgaca gcgccgctt tgtgcagcgc cgtgtgctct tcgcgtccc ggcacagtcc tctgcaagga gaactgagaa gattttctta agcacttttc agagcagggc cgagccccag tctaagtcctc agtcattgag tctcagtgca ctagagccca actcagggc gaaaccagcc aattctgctg cagagaatgg ttttcaggag catgaagttt ga MASPSLPGSD CSQIIDSHV PEFEVATWIK ITLILVYLII FVMGLLGNLSA TIRVTQVLQK P KGYLQKEVTD HMVSLACSDI LVFLIGMPME FYSIWNPLT TSSYTLCKL HTLFEACSY ATLLHLVTL FERYIAICHP FRYKAVSGPC QVKLLIGFVW VTSALVALPL LFAMGTEYPL VNVPSHRGLT CNRSSTRHHE QPETSNMSIC TNLSSRWTVF QSSIFGAFV YLVVLLSVAF MCWNMMQVLM KSQKSLAGG TRPPQLRKSE SEESTARRQ TIIFLRLIV TLAVCWMPNQ IRRIMAAKP KHDWTRSYFR AYMILLPFSE TFFYLSSVIN PLYTVSSQ FRRVFVQVLC CRLSLQHANH EKRLRVHAHS TTDSARFVQR PLLFASRRQS SARRTEKIFL STFQSEAEPO SKSQSLSLES LEPNSGAKPA NSAAENGFOE HEV	Homo sapiens
364	6921	G Protein- Coupled Receptor GPR39	NP_001499.1	ggacaggtgc ccgggagct tcccgctcgc gaagacccag acggtcgcag gagccccggc A agcctcgggg tcagcggcac catgaacgtc tcgggctgcc caggggcccgg gaacgcgagc cagcgggggc gcgggggagg ctggcacccc gagcggtca tctgtcccc gctcttcgcy ctcatcttcc tctgtggcac cgtggggcaac cgtcgggtgc tggcggtgct gctgcggcgc ggccaggcgg tcagcactac caacctgttc atccttaacc tgggcgtggc gacactgtgt ttcatcctgt gctgcgtgcc ctccaggcc accatatac ccctggacgg ctgggtgttc ggctcgtgc tgtgcaaggc ggtgcacttc ctcatcttc tcaccatga cgccagcagc ttcacgctgg ccgcgtctc cctggacagg tatctggcca tccgctacc gctgcactcc	Homo sapiens
365	7221	Galanin Receptor GalR2	NM_003857		Homo sapiens

366	7221	Galanin Receptor GalR2	NP_003848.1	<p>cgagagctgc gcacgcctcg aaacgcgctg gcagccatcg ggctcatctg ggggctgctg ctgtcttctt cggggcccta cctgagctac taccgccagt cgcagctggc caacctgacc gtgtgccatc cgcgtggag cgcctctgc cgcgcgcca tggacatctg caacctgctc ttcagctacc tgcctctgt gctggttctc ggctgacctc acgcgcgcac cttgcgctac ctctggcgcg cgtcgacc cgtggccgcg ggctcgggtg cccggcgcgcc caagcgcaag gtgacacgca tgatctcat cgtggccgcg cctcttctgc tctgctggat gccccaccac gcgctcatcc tctgctgtg gttcggccag ttcccgctca cgcgcgccac ttatgcgctt cgcctcctct cgcacctgtt ctcctacgcc aactcctgcg tcaaccccat cgtttacgcg ctggtctcca agcacttcg caaaggcttc cgcacgatct gcgcgggctt gctggggcgt gccccaggcc gagcctcggg ccgtgtgtgc gctgcgcgcg ggggcaccca cagtggcagc gtgttgagc gcgagtcag cgaacctgtt ccatgagcg aggcggcggg ggccttctgt ccctgccccg gccttctcca gccatgcac ctcgagcctt gtcctggccc gtcctggcag ggcccaagg caggcgacag catcctgacg gttgatgtg cctgaaagca cttagcgggc gcgctgggat gtcacagagt tggagtcatt gttgggggac cgtggggccg NNVSGCPGAG NASQAGGGG WHEAVIVPL LFALIFLVGT VGNILVLAVL LRGGQAVSTT P NLFILNLGVA DLCFILCCVP FQATYITLDG WVFGLLCKA VHFLIFLTMH ASFTLAASVS LDRLAIRYP LHSRELTPR NALAAILGLW GLSLFSGPY LSYYRQSLA NLTVCHPAWS APRRRAMDIC TFVFSYLLPV LVLGTYART LRYLWRAVDF VAAGSGARRA KRKVTMILI VAALFCLCWM PHHALILCVW FQGFPLTRAT YALRILSHLV SYANSCVNPI VYALVSKHFR KGERTICAGL LGRAPGRASG RVCAARGTH SGSVLERESS DLLHMFSEAG ALRPCPGASQ PCILEPCGP SWQPKAGDS ILTVDA</p>	Homo sapiens
367	7246	Orexin Receptor 1	NM_001525	<p>ctctccttca ggaagtttga ggctgagacc cgaaaagacc tgggtgcaag cctccaggca A ccctgaaggg agtgggctga gggctggccc aagctccctc ctctccctct gttagagccta ggatgccccct ctgctgcagc ggctcctgag ctcattggagc ctcagccac cccaggggcc cagatggggg tcccccttg cgcagagag cgttccccctg tgcctccaga ctatgaagat gagttctctc gctatctgtg gcgtgattat ctgtacccaa aacagtatga gtgggtcctc atcgagcctt atgtggctgt gttcgtctgt gccctgggtg gcaacacgct ggctcgcctg gccgtgtggc ggaaccacca catgaggaca gtcaccaact acttcattgt caacctgtcc ctggctgacg ttctggtgac tgctatctgc ctgcccggcca gccctgctgt ggacatcact gagtcctggc tgttcggcca tgccctctgc aaggtcatcc cctatctaca ggctgtgtcc gtgtcagtg cagtgcctaac tctcagcttc atcgcccttg accgctggtg tgccatctgc caccactat tgttcaagag cacagcccg cgggcccctg gctccatcct gggcatctgg gctgtgtgc tggccatcat ggtgccccag tctgagctca tggaaatgcag cagtgtgtg cctgagctag ccaaccgcac acggctcttc tcaagtgtgt atgaacgctg ggcagatgac ctctatccca agatctacca cagttgcttc ttatttgtca cctacctggc cccactgggc ctcatggcca tggcctattt ccagattct cgcaagctct gggcccgcca gatccccggc accacctcag cactggtgc gaactggaag cgccccctcag accagctggg ggacctggag cagggcctga gtggagagcc ccagcccccg ggcgcgcctt tcctggctga agtgaagcag atgcgtgcac ggaggaagac agccaagatg ctgatggtg tgcgtgtgt cctcgccctc tgctacctgc ccatcagcgt cctcaatgtc cttaaagagg tgttcgggat gttccgcca gccagtgacc gcgaagctgt ctacgcctgc ttcaccttct cccactggct ggtgtacgcc</p>	Homo sapiens

368	7246	Orexin Receptor 1	NP_001516.1	MEPSATPGAQ MGVPFGSREP SPVPPDYDE FLRYIMRDYL YPKQYEWVLI AAYVAVFVVA P LVGNTLVCLA VVRNHHMRTV TNYFIVNLSL ADVLVTALCL PASLLVDITE SWLFGHALCK VIPYLQAVSV SVAVLTLSFI ALDRWYAICH PLEFKSTARR ARGSSILGIWA VSLAIMVPQA AVMECSSVLP ELANRTRLES VCDERWADDL YPKIYHSCFF IVTYLAPLGL MAMAYFQIFR KLWGRQIPGT TSALVRNWKR PSDQLGDLEQ GLSGEPQPRG RAFLAEVKQM RARRKTAQML MVLLVFALC YLPISVLNVL KRVFQMFQRA SDREAVYACF TFSHWLVYAN SAANPIIYNF LSGKFRREQFK AAFSCCLPGL GPCGSLKAPS PRSSASHKSL SLQSRCSISK ISEHVVLTSV TTVLP	Homo sapiens
369	7247	Orexin Receptor 2	NM_001526	gggggggggg taattgagct tcagctgagc cggaagctagc tttctctctcc tgggtgcatt A gctgcagcct ccagtgccgg gtccctagtt cctcagctgc ctatcttccc ggtgcaacat cgctgtaaa gacagcaag ccaccgcaga agttgcccg cagaagactc cggaggcatt ggctcagtaa cttttcacgt cttttctgc tcgggagccc cttctagcct ctccgcgcag cctttccac cgaaatcac cagtgtcat ggggcaggcg gagaggagct tgcagcattg agcggaaccg gacttgagcc cgtgatgtcc ggcacaaaat tggaggactc cccccctgt cgaaactggt catctgcttc ggagctgaat gaaactcaag agccctttt aaaceccacc gactatgacg acgaggaatt cctgcggtac ctgtgaggg aatacctgca ccgaaaagaa tatgagtggg tctgatgcg cgggtacatc atcgtgttcg tcgtggctct cattgggac gtcctgggtt gtgtggcagt gtggaagaac caccacatga ggacggtaac caactactc atagtcaatc tttctctggc tgatgtgctc gtgacatca cctgccttcc agccacactg gtcgtggata tcaactgagac ctgggttttt ggacagtccc tttgcaaat gattccttat ctacagaccg tgcggtgtc tgtgtctgtc ctcaactga gctgtatcg cttggatcgg tggatgcaa tctgtcacc tttgatgtt aagagcacag caaagcggc cgtaacacg attgtcatc tctggattgt cctctgcat ataattgattc ctcaggccat cgtcatggag tgacgaccg tgttcccagg cttagccaat aaaaacccc tctttacggt gtgtgatgag cgctgggtg gtgaaattta tcccaagatg taccacatct gtttcttct ggtgacatac atggcaccac tgtgtctcat ggtgttggct tatctgcaaa ttttctgcaa actctggtgt cgacagatcc ctggaacatc atctgtagt cagagaaaat ggaagccct gcagcctgtt tcacagctc gaggccagg acagccaacg aagtcggga tgagcgtgt ggcggtgaa ataaagcaga tccgagccag aaggaaaaa gcccgatgt tgatggtgt gcttttggtg tttgcaattt gctatctacc aattagcatc ccaatgtgc taaagagagt atttggagt tttgcccata ctgaagacag agagactgt tatgcctgggt ttacctttc acactggctt gtatatgcca atagtgtcgt gaatccaatt atttataatt ttctcagtg aaaatttca gaggaattta aagctgcgtt ttctgtgtg tgccttgag ttcaccatcg ccaggaggat cggtcacca ggggacgaac tagcacagag agccggaagt ccttgaccac tcaaatcagc	Homo sapiens

370	7247	Orexin Receptor 2	NP_001517.1	<p>aactttgata acatatcaaa actttctgag caagtgtgac tcaatgcat aagcacactc ccagcagcca atggagcagg accacttcaa aactggtaga atatttattc atatgacaag gatactgag taaaactatc ctttttaaaa tcaactggaa cagaaatttt attatcctat gatgtgaagc taaaattact tgtggatctt tttttttttt aatctattgc tctttggaaa taaaaaaaa gtcagtttaa aatgaaaaaa aaaaaaaaaa aat</p> <p>MSGTKLEDSP PCRNWSSASE LNETQEPFLN PTDYDDEEFL RYLWREYLHP KEYEWVLIAG P YIIVFVALI GNVLCVAVW KNHMRFTVN YFIWNLSLAD VLVITICLPA TLVVDITETW FFGQSLCKVI PYLQTVSVSV SVTLSCIAL DRWYAICHL MFKSTAKRAR NSIIVIIWVS CIIMIPOAIV MECSTVFPGL ANKTLFTVC DERWGGEIYP KMYHICFFLV TYMAPLCLMV LAYLQIFRKL WCRQIPGTSS VVQRKWKPLQ PVSQPRGPGQ PTKSRMSAVA AEIKQIRARR KTARMLMWVL LVEAICYLPI SILNLKRVF GMEFAHTEDE TVYAWFTFESH WLWYANSAAN PIIYNFLSGK FREEFKAFS CCCLGVHHRQ EDRLTRGRTS TESRKSLLTQ ISNFDNISKL SEQVVLTSIS TLPAANGAGP LQNW</p>	Homo sapiens
371	8436	Platelet- Activating Factor Receptor	NM_000952	<p>ccagctgata ttccagccca cagcaatgga gccacatgac tcctcccaca tggactctga A gttccgatac actctcttcc cgattgttta cagcatcatc tttgtgctcg gggctcattgc taatggctac gtgctgtggy tctttgcccg cctgtaccct tgcaagaaat tcaatgagat aaagatctc atggtgaacc tcaccatggc ggacatgctc tcttggatca ccttgccact ttggattgc tactacaaa accaggggcaa ctggatactc cccaaattcc tgtgcaacgt ggctggctgc cttttcttca tcaaacaccta ctgctctgtg gccttctggy gogtcatcac ttataacgc ttccaggcag taactcggcc catcaagact gctcaggcca aaccccgcaa gcgtggcatc tctttgtcct tggctatctg ggtggccatt gtgggagctg catcctactt cctcatcctg gactctacca acacagtgcg cgacagtgtt ggctcaggca acgtcactcg ctgctttgag cattaacaga agggcagcgt gccagtcctc atcatccaca tcttcatcgt gttcagcttc ttctgggtct tcctcatcat cctcttctgc aacctggtca tcatcgttac cttgctcatg cagccggtgc agcagcagcg caacgctgaa gtcaagcgcc gggcgctgtg gatggtgtgc acggtcttgg cgggtttcat catctgcttc gtgccccacc acgtggtgca gctgccccgg acccttgctg agctgggctt ccaggacagc aaattccacc aggccattaa tgatgcacat caggtcacc tctgcctcct tagcaccacac tgtgtcttag accctgttat ctactgttc ctcaccaaga agttccgcaa gccactcacc gaaaagtctt acagcatgcy cagtagccgg aaatgctccc gggccaccac ggatacggtc actgaagtgg ttgtgccatt caaccagatc cctggcaatt cctcctcaaaa ttagtctctg cttc</p> <p>MADMLFLITL PLWIVYQNG VYSIIFVLGV IANGVYLMVF ARLYPCKKEN EIKIFMVNLT P RPIKTAQANT RKRGISLSLV NWALPKFLC NVAGCLFFIN TYCSVAFLGV ITYNRFQAVT SVPVLIHIF IVSFFLVFL IILFCNLVII RTLLMQPVQO QRNAEVKRR LMMVCTVLAV FIICFVPHV VQLPWTIAEL GFQDSKFHQA INDHQVTLIC LLSTNCVLDL VIYCFLTRKF RKHLTEKFYS MRSSRKCSRA TTDTVTEVV PFNQIPGNSL KN</p>	Homo sapiens
372	8436	Platelet- Activating Factor Receptor	NP_000943.1	<p>MEPHDSSHMD SEFRYTLFPI VYSIIFVLGV IANGVYLMVF ARLYPCKKEN EIKIFMVNLT P MADMLFLITL PLWIVYQNG VYSIIFVLGV IANGVYLMVF ARLYPCKKEN EIKIFMVNLT P RPIKTAQANT RKRGISLSLV NWALPKFLC NVAGCLFFIN TYCSVAFLGV ITYNRFQAVT SVPVLIHIF IVSFFLVFL IILFCNLVII RTLLMQPVQO QRNAEVKRR LMMVCTVLAV FIICFVPHV VQLPWTIAEL GFQDSKFHQA INDHQVTLIC LLSTNCVLDL VIYCFLTRKF RKHLTEKFYS MRSSRKCSRA TTDTVTEVV PFNQIPGNSL KN</p>	Homo sapiens
373	8509	G Protein- Coupled Receptor Ls8509	NM_007223	<p>tgggggcgctc ctccttcgct cccgcccgcc tgtcaagctg tgttctagcg gccgagggac A cgaggggggc taagaaaggg ggcgcccgcc catgcagagg caaaaaggcg ctgcgggaacg gggtccccgt cgccagtgtc gaggcaggag gtcggagcca caagttaggg gctgggaagc aggaccagc acgggcgtct tggcaggcgg cggggcgccg gcccaggctg ctgggggacgc</p>	Homo sapiens

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gtccacatta ttctctgtg ggacaagagc tgggcagttt tgaatgggtc ttgaggtggg

374 8509 G Protein- NP_009154.1 Homo sapiens
Coupled
Receptor
Ls8509

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375 8896 Neuropeptide NM_006173 Homo sapiens
Y Receptor
Type 6
Pseudogene

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376	8896	Neuropeptide Y Receptor Type 6 Pseudogene	NP_006164.1	caagaatga gaatgagaaa gcagagagag aggcacaacag cagtgatggc tgggacaaca tgttcacaga tacttttatt caatggaata tctacaaaag ttagactaa tgatagcct agtaaaaaa ctgctatacc tccttagcac tgagaat mevsnhpnas nttstknns affyfesccp pspallllci aytvvlivgl fgnlslllii P fkqkrkaqnf tsilianlsl sdtlvcvmci hftliyltmd hwiifdtmcr ltsyvgsvsi svsifsvft averyqlivn prgwksvth aygwltiwl fslslsipff lsyhltdpff rnslsptdly thqvacvenw pskkdrllft tsllflqyfv plgfillcyl kiviciirrn akvdkkkene grlnenkrin tmlisivtf gacwlpriess mssltgimrc cattccacc cttccttctt taataagcag gagcgaaaaa gacaaattcc aaagaggatt A gttcagttca agggaatgaa gaattcagaa taattttggt aaatggattc caatatcggg aataagaata agctgaacag ttgacctgct ttgaagaaac atactgtcca tttgtctaaa ataatctata acaaccaac caatcaaaat gaattcaaca ttattttccc aggttgaaaa tcattcagtc cactctaatt tctcagagaa gaatgcccag cttctggctt ttgaaaaatga tgattgtcat ctgcccttgg ccattgatatt taccttagct cttgcttatg gagctgtgat cattcttggt gtctctgaaa acctggcctt gatcataatc atcttgaaac aaaaggagat gagaaatgtt accaacatcc tgattgtgaa cctttccttc tcagacttgc ttgttgccat catgtgtctc cctttacat ttgtctacac attaatggac cactgggtct ttggtgaggc gatgtgtaag tgaatcctt ttgtgcaatg tgttcaatc actgtgtcca tttctctct ggttctcatt gctgtggaac gacatcagct gataatcaa cctcgagggt ggagacaaaa taatagacat gcttatgtag gtattgctgt gatttggtc cttgctgtgg cttctctctt gcctttcctg atctaccaag taatgactga tgagccgttc caaaatgtaa cacttgatgc gtacaaagac aaatacgtgt gctttgatca atttccatcg gactctcata ggttgcctta taccactctc ctcttggtgc tgcagtattt tgggtccactt tgtttatat ttatttgcta cttcaagata tatatacgc taaaaggag aacaacatg atggacaaga tgagagacaa taagtacagg tccagtgaat ccaaaagaat caatatcatg ctgctctcca ttgtggtagc atttgcagtc tgctggctcc ctcttaccat ctttaacact gtgtttgatt ggaatcatca gatcattgct acctgcaacc acaatctgtt attcctgctc tgccacctca cagcaatgat atccacttgt gtcaacccca tattttatgg gttcctgaac aaaaacttcc agagagactt gcagttcttc ttcaactttt gtgatttccg gtctcgggat gatgattatg aaacaatagc catgtccacg atgcacacag atgtttccaa aacttctttg aagcaagcaa gccagtcgc atttaaaaa atcaaaaa atgatgataa tgaaaaaatc tgaaactact tatagcctat ggtcccgat gacatctgtt taaaaacaag cacaactcgc acatactttt gattacctgt tctcccaagg aatggggttg aaatcatttg aaatcacta agattttctt gtcttgcttt ttactgcttt tgttgtagtt gtcataatta catttgaac aaaaggtgtg ggctttgggg tcttctggaa atagttttga ccagacatct ttgaagtgtc ttttgtgaat ttatgcatat aatataaaga cttttatact gtacttattg gaatgaaatt tctttaaagt attacgatgc gctgacttca gaagtacctg ccatccaata cgggtcattag attgggtcat cttgattaga ttagattaga ttagattgtc aacagattgg gccatcctta ctttatgata ggcattatt tagtgtgta caatagtaac agtatgcaa agcagcattc aggagccgaa agatagtctt gaagtcattc agaagtgggt tgaggtttct gttttttggt ggtttttggt tgttttttt ttttttcacc ttaaggaggag ctttcatttc ctcccgaact atgtgcactt aaatcaaaa	Homo sapiens
377	9421	Neuropeptide Y Receptor Type 1	nm_000909	caagaatga gaatgagaaa gcagagagag aggcacaacag cagtgatggc tgggacaaca tgttcacaga tacttttatt caatggaata tctacaaaag ttagactaa tgatagcct agtaaaaaa ctgctatacc tccttagcac tgagaat mevsnhpnas nttstknns affyfesccp pspallllci aytvvlivgl fgnlslllii P fkqkrkaqnf tsilianlsl sdtlvcvmci hftliyltmd hwiifdtmcr ltsyvgsvsi svsifsvft averyqlivn prgwksvth aygwltiwl fslslsipff lsyhltdpff rnslsptdly thqvacvenw pskkdrllft tsllflqyfv plgfillcyl kiviciirrn akvdkkkene grlnenkrin tmlisivtf gacwlpriess mssltgimrc cattccacc cttccttctt taataagcag gagcgaaaaa gacaaattcc aaagaggatt A gttcagttca agggaatgaa gaattcagaa taattttggt aaatggattc caatatcggg aataagaata agctgaacag ttgacctgct ttgaagaaac atactgtcca tttgtctaaa ataatctata acaaccaac caatcaaaat gaattcaaca ttattttccc aggttgaaaa tcattcagtc cactctaatt tctcagagaa gaatgcccag cttctggctt ttgaaaaatga tgattgtcat ctgcccttgg ccattgatatt taccttagct cttgcttatg gagctgtgat cattcttggt gtctctgaaa acctggcctt gatcataatc atcttgaaac aaaaggagat gagaaatgtt accaacatcc tgattgtgaa cctttccttc tcagacttgc ttgttgccat catgtgtctc cctttacat ttgtctacac attaatggac cactgggtct ttggtgaggc gatgtgtaag tgaatcctt ttgtgcaatg tgttcaatc actgtgtcca tttctctct ggttctcatt gctgtggaac gacatcagct gataatcaa cctcgagggt ggagacaaaa taatagacat gcttatgtag gtattgctgt gatttggtc cttgctgtgg cttctctctt gcctttcctg atctaccaag taatgactga tgagccgttc caaaatgtaa cacttgatgc gtacaaagac aaatacgtgt gctttgatca atttccatcg gactctcata ggttgcctta taccactctc ctcttggtgc tgcagtattt tgggtccactt tgtttatat ttatttgcta cttcaagata tatatacgc taaaaggag aacaacatg atggacaaga tgagagacaa taagtacagg tccagtgaat ccaaaagaat caatatcatg ctgctctcca ttgtggtagc atttgcagtc tgctggctcc ctcttaccat ctttaacact gtgtttgatt ggaatcatca gatcattgct acctgcaacc acaatctgtt attcctgctc tgccacctca cagcaatgat atccacttgt gtcaacccca tattttatgg gttcctgaac aaaaacttcc agagagactt gcagttcttc ttcaactttt gtgatttccg gtctcgggat gatgattatg aaacaatagc catgtccacg atgcacacag atgtttccaa aacttctttg aagcaagcaa gccagtcgc atttaaaaa atcaaaaa atgatgataa tgaaaaaatc tgaaactact tatagcctat ggtcccgat gacatctgtt taaaaacaag cacaactcgc acatactttt gattacctgt tctcccaagg aatggggttg aaatcatttg aaatcacta agattttctt gtcttgcttt ttactgcttt tgttgtagtt gtcataatta catttgaac aaaaggtgtg ggctttgggg tcttctggaa atagttttga ccagacatct ttgaagtgtc ttttgtgaat ttatgcatat aatataaaga cttttatact gtacttattg gaatgaaatt tctttaaagt attacgatgc gctgacttca gaagtacctg ccatccaata cgggtcattag attgggtcat cttgattaga ttagattaga ttagattgtc aacagattgg gccatcctta ctttatgata ggcattatt tagtgtgta caatagtaac agtatgcaa agcagcattc aggagccgaa agatagtctt gaagtcattc agaagtgggt tgaggtttct gttttttggt ggtttttggt tgttttttt ttttttcacc ttaaggaggag ctttcatttc ctcccgaact atgtgcactt aaatcaaaa	Homo sapiens

378	9421	Neuropeptide NP_000900.1 Y Receptor Type 1	<p> ttaaaaaatga ataaaaagac atactttctca gctgcaataa ttatggagaa ttgggcacccc acaggaatga agagagaaag cagctcccca acttcaaaac cattttggta cctgacaaca agagcatttt agagtaatta atttaataaa gtaaatagat ttccattttt ttttacagac tgttcagttg tatatttatt tgaattgatg gtcaagagat ttccattttt cgtttacaat ttgtagaaaac ttgtcaagct tctggctcaa tatgtactcg aaagactttt agtttttaac tttcaatgtc acaaatatcg ttttccatac agcagtgccat atagatgac tgattttaac tttcaatgtc catctttcaa aggaagtaac accaaggtag aatgttaaac gaataattcac tttacctagc agggaaaaat acacaaaaac tgcagatact tcatatagcc cattttaact tgtataaaact gtgtgacttg tggcgctcta taaataatgc actgtaaga ttaactgaata gttgtgtcat gttaatgtgc ctaattttcat gtatctttgta atcatgattg agcctcagaa tcattttggag aaactatatt ttaaagaaca agacatactt caatgtatta tacagataaa gtattacatg tgtttgattt taaaaggcgc gacattttat taaaatcaat attgtttttg ctttttctga ggagtccttt tcagtttcat tttttctcat cccatgactt cctccgatg gt MNSTLFSQVE NHSVHSNFSE KNAQLLAFEN DDCHLPLAMI FTLLALAYGAV IILGVSGNLA P LIIILKQKE MRNVTNIIIV NLSFSDLLVA IMCLPFTFVY TLMDHWFGE AMCKLNPFVQ CVSITVSIFS LVLIIVERHQ LIINPRGWRP NNRHAYVGIA VIWVLAVASS LPFLIYQVMT DEPFQNVTLT AYKDKYVCFD QFPDSHRLS YTTLLVLQY FGPLCFIFIC YFKIYIRLKR RNNMDKMRD NKYSSETR INIMLLSIV AFVVCWLPLT IFNTVFDWNH QIIATCNHNL LFLCHLTAM ISTCVNPIFY GFLNKNFQRD LQFFNFCD FRSRDDYETI AMSTMHTDVS KTSLKQASPV AFKINNND NEKI agccggagcga gcccgaggat gggagggcac ccgcagctcc gtctcgtcaa ggcctttctc A cttctggggc tgaaccccg tctgcctcc ctccaggacc agcactgcga gagcctgtcc ctggccagca acatctcaga caatggctac cgggagtgcc tggccaatgg cagctgggccc gcccgctga attactcga gtgccaggag atcctcaatg aggagaaaaa aagcaagggtg cactaccatg tcgcagtcac catcaactac ctgggccact gtatctccct ggtggccctc ctggtggcct ttgtctcttt tctgcgctc aggagcatcc ggtgcctgcg aaacatcatc cactggaacc tcatctccgc cttcatcctg cgcaacgcca cctgggttcgt ggtccagcta accatgagcc ccgaggtcca ccagagcaac gtgggctggt gcaggttgggt gacagccgccc tacaactact tccatgtgac caactcttc tggatgttcg gcgagggctg ctactcgac acagccatcg tgctcaccta ctccactgac cggctgcgca aatggatgtt catctgcatt ggctgggggtg tggccttccc catcattgtg gcctgggcca ttgggaagct gtactacgac aatgagaagt gctgggttgg caaaaggcct ggggtgtaca ccgactacat ctaccagggc cccatgatcc tggctcctgt gatcaatttc atcttcttt tcaacatcgt ccgcatcctc atgaccaagc tccgggcatc caccacgtct gagaccatc agtacaggaa ggtgtgaaa gccactctgg tgctgtgccc cctcctgggc atcacctaca tgctgttctt cgtcaatccc ggggaggatg aggtctcccc ggtcgtcttc atctacttca actccttctt ggaatccttc caggccttct ttgtgtctgt gtctactgt tctctcaata gtgaggtccg tctgtccatc cggaagaggt ggcacccgtg gcaggacaaag cactcgatcc gtgcccagat ggcccgtgccc atgtccatcc ccactcccc aaccctgtgc agctttcaca gcatcaagca gtccacagca gtctga </p>	Homo sapiens
379	9834	Corticotropin releasing factor Receptor 1	<p> agccggagcga gcccgaggat gggagggcac ccgcagctcc gtctcgtcaa ggcctttctc A cttctggggc tgaaccccg tctgcctcc ctccaggacc agcactgcga gagcctgtcc ctggccagca acatctcaga caatggctac cgggagtgcc tggccaatgg cagctgggccc gcccgctga attactcga gtgccaggag atcctcaatg aggagaaaaa aagcaagggtg cactaccatg tcgcagtcac catcaactac ctgggccact gtatctccct ggtggccctc ctggtggcct ttgtctcttt tctgcgctc aggagcatcc ggtgcctgcg aaacatcatc cactggaacc tcatctccgc cttcatcctg cgcaacgcca cctgggttcgt ggtccagcta accatgagcc ccgaggtcca ccagagcaac gtgggctggt gcaggttgggt gacagccgccc tacaactact tccatgtgac caactcttc tggatgttcg gcgagggctg ctactcgac acagccatcg tgctcaccta ctccactgac cggctgcgca aatggatgtt catctgcatt ggctgggggtg tggccttccc catcattgtg gcctgggcca ttgggaagct gtactacgac aatgagaagt gctgggttgg caaaaggcct ggggtgtaca ccgactacat ctaccagggc cccatgatcc tggctcctgt gatcaatttc atcttcttt tcaacatcgt ccgcatcctc atgaccaagc tccgggcatc caccacgtct gagaccatc agtacaggaa ggtgtgaaa gccactctgg tgctgtgccc cctcctgggc atcacctaca tgctgttctt cgtcaatccc ggggaggatg aggtctcccc ggtcgtcttc atctacttca actccttctt ggaatccttc caggccttct ttgtgtctgt gtctactgt tctctcaata gtgaggtccg tctgtccatc cggaagaggt ggcacccgtg gcaggacaaag cactcgatcc gtgcccagat ggcccgtgccc atgtccatcc ccactcccc aaccctgtgc agctttcaca gcatcaagca gtccacagca gtctga </p>	Homo sapiens

380	9834	Corticotropin releasing factor Receptor 1	NP_004373.1	MGHPQLRLV KALLLLGLNP VSASLQDQHC ESLSLASNIS DNGYRECLAN GSWAARVNYS P	Homo sapiens
				ECQEILNEEK KSKVHYHVAV IINYLGHICIS IVALLVAFVL FLRLRSIRCL RNIIHWNLIS	
				AFILRNATWF VVQLTMSPEV HQSNVWCRL VTAAYNYFHV TNFFWMEGEG CYLHTAIVLT	
				YSTDRLRKWM FICIGWGVPF PIIVAWAIGK LYDNEKCNWF KRPBGVYTDY IYQGPMLIVL	
				LINFIPLFNI VRILMTKLRA STTSETIQYR KAVKATLVLL PLLGITYMLF FVNPGEDEVS	
				RVFIYFNSF LESFQGFVS VFYCFLNSEV RSAIRKRWHR WQDKHSIRAR VARAMSIPIS	
				PTRVSEHSIK QSTAV	
381	10457	Frizzled-2	NM_001466	cgagtaaaagt ttgcaaaag ggcggggagg gcgcagaccgc agcgaggagg cgcgggggaa A	Homo sapiens
				gaagcgagat ctccgggttg gggcgggggg cggggggggg gccaaggagc cggtgggggg	
				gcggcgggcca gcatgcggcc ccgcagcgcc ctgccccgcc tgcgtgctgc gctgctgctg	
				ctgccccgcg ccgggcccgc ccagttccac ggggagaagg gcatctccat ccgcgaccac	
				ggcttctgcc agcccatctc catcccgctg tgcacggaca tcgcctacaa ccagaccatc	
				atgcccaccc ttctgggcca cagcaaccag gaggacgcag gcctagaggt gcaccagtcc	
				tatccgctgg tgaagggtgca gtgctgcgcc gaactgcgct tcttccgtg ctccatgtac	
				gcaccctgtg gcaccgtgct ggaacaggcc atcccccggt ccgcctctat ctgtgagcgc	
				gcgcgccagg gctgcgaag cctcatgaac aagttcggtt ttcagtggcc cgagcgccgtg	
				cgctgcgagc acttcccgcg ccacggcgcc gacagatct gcgtcggcca gaaccatcc	
				gaggacggag ctcccgcgt actcaacc ccgcgcgcgc cgggactgca gccgggtgccc	
				gggggcaacc cggttgccc gggcgggcgc ggcgtcccc ccgcctacgc cagctggag	
				cacccttcc actgcccgcg cgtcctcaag gtgccatcct atctcagcta caagtttctg	
				ggcgagcgtg attgtgctg gccctgcgaa cctgcgcgcgc ccgatgggtc catgttcttc	
				tcacaggagg agacgcgtt cgcgcgctc tggatcctca cctggtcggt gctgtgctgc	
				gcttccacct tcttcaactg caccacgtac ttggtagaca tgcagcgctt ccgctaccca	
				gagcgcccta tcatttttct gtccggctgc tacaccatgg tgcgtgggc ctacatcgcg	
				ggcttcgtgc tccaggagcg cgtggtgtgc aacgagcgct tctccgagga cgtttaccgc	
				acggtggtgc agggcaccac gaaggagggc tgcaccatcc tcttcatgat gctctacttc	
				ttcagcatgg ccagctccat ctggtgggtc atcctgtcgc tcacctggt cctggcagcc	
				ggcatgaagt gggggccacga ggccatcgag gccaaacttc agtacttcca cctggcgcgc	
				tgggcccgtgc cggccgtcaa gaccatcacc atcctggcca tgggccagat cgacggcgac	
				ctgctgagcg gcgtgtgctt cgtaggcctc aacagcctgg acccgctgcg gggcttcgtg	
				ctagcgccgc tcttcgtgta cctgttcac tgcacgtcct tectcctggc cggcttcgtg	
				tcgctcttcc gcataccgac catcatgaag cagacggca ccaagaccga aaagctggag	
				cggctcatgg tgcgcatcgg cgtcttctcc gtgctctaca cagtgcctgc caccatcgtc	
				atcgcttgcct acttctacga gcaggccttc cgcgagcact gggagcgctc gtgggtgagc	
				cagcactgca agagcctggc catcccgtgc ccggcgcaact acacgcgcg catgtcgcgc	
				gacttcacgg tctacatgat caaatacctc atgacgtca tcgtgggcat cagtcgggc	
				ttctggatct ggtcgggcaa gacgtgcac tcgtggagga agttctacac tcgcctcacc	
				aacagccgac acggtgagac caccgtgtga gggacgcccc caggccggaa ccgcgcggcg	
				cttctctccg ccgggggtgg ggcccctaca gactcgtat tttattttt taaataaaaa	
				acgatcgaaa ccatttcaact tttaggttgc ttttataaag agaactctct ccccaacacc	
				ccc	

382	10457	Frizzled-2	NP_001457.1	MRPRSALPRL LLPLLLLPAA GPAQFHGEKG ISIPDHGFCQ PISIPLCTDI AYNQTIMPNL P LIGNTQEDAG LEVHQFYPLV KVQCSPELRF FLCSMYAPVC TVLEQAIPPC RSICERARQG CEALMNKFGF QWPERLRCEH FPRHGAEQIC VQONHSESDG PALLTAPP PP GLQPGAGGTP GGPGGGGAPP RYATLEHPEH CPRVLKVPSY LSYKFLGERD CAAPCEPARP DGSMMFFSQEE TFEARLMILT WSVLCCASTF FVTYTYLVDM QFRYPERPI IFLSGCTMV SVAYIAGFVL QERVVCNERF SEDGYRTVVQ GTKKEGCTIL FMNLYFFSMA SSIWVWVLSL TWFLAAGMKW GHEAIEANSQ YFHAAWAVP AVKTITILAM GQIDGDLISG VCFVGLNSLD PLRGFVLAPL FVYLFIGTSF LLAGFVSLFR IRTIMKHDGT KTEKLERLMV RIGVFSVLYT VPATIVIACY FYEQAIFREHW ERSWVSQHCK SLAIPCPAHY TPRMSPDFTV YMIKYLMTLI VGITSGFWIW SGKTLHSWRK FYRLTNSRH GETTV	Homo sapiens
383	11968	Putative Leukocyte Platelet-Activating Factor Receptor (HUMNPIIY20)	NM_022571	atggccttac tgggcagcca gcaactccggc gcccctccg cggcccgccc acctggcggg A acttctctcag cggccacggc ggccgtgctc tccttcagca cegtggcgac cgcggcgctg gggaacctga ggcacgcaag cggagcgccg acagctgccg ctcgccgtgg cggcgccctt ggcggttccg gggcagcgcg gggcgggggg cggcggtga ggcggccgct agcccgagg ggcgcgccgc tgcgtgcga cggagctgca gtggcgccc aggcgctcgt cctcctgctc atcttctgc tgcgtagcct tggcaactgc cgggtgatgg gggtagtgt gaagcacgg cagctccgca ccgtcaccaa cgccttcac cgtcgtcgt cctatcgga tctgctcacg gcgtgctct gcctgcccgc cgccttctc gacctctca ctcggccgg gggttcggcg cctgcgtgc ccgcggggcc ctggcgccgc tctgcccgc caagccgtt cttcagctcg tgcttcggca tgcgtacgc tcagcgtggc gctcatctcg ttggaccgtt actgcgtat cgtcgccgc cgcgggagaa gateggcgc cgcgcgcgc tgcagctgct ggcggggcgc tggtgacgg ccctgggctt ctcctggcc tgggagctgc tggggcgcc cggggaactc ggcgggggc agagcttcca cggctgccc taccggacct ccccgacc cgcgcagctg ggcgccctt tcagcgtggg cgtggtggtg gctgctacc cctggccctt cctgctcacc tgcttctgc actaccacat ctgcaagac gtgcgctgt cggacgtgc cgtgcggccg gtgaacacct acgcgcgct gctgcgttct tcagcgaggt gcgcacggc accaccgtcc tcatcatga	Homo sapiens
384	11968	Putative Leukocyte Platelet-Activating Factor Receptor (HUMNPIIY20)	NP_072093.1	MALLGSQHS APSAAGPPGG TSSAATAAVL SFSTVATAAL GNLSDASGG TAAAPGGGGL P GGSGAAREAG AAVRRPLGPE AAPLLSHGAA VAAQALVILL IFLLSSLGNC AVMGVIVKHR QLRTVTNAFI LSLSLDLIT ALLCLPAFL DLFTPPGSA PALPAGPWRG FCRPSRFFSS CFGIVYAQRG AHLVGPLLY RRPPEKIGR RRALQLLAGA WLTALGFSLP WELLGAPREL AAGQSFHGCL YRTSPDPAQL GGFVSGLV ACYLLPFLLI CFCHYHICKT VRLSDVRVRP VNTYARVLR SARCAPPSPS SS	Homo sapiens
385	14198	Interleukin-8 Receptor B	nm_001557	cattcagaga cagaaggtag atagacaaat ctccacctc agactggtag gctcctccag A aagccatcag acaggaagat gtgaaaatcc ccagcactca tcccagaatc actaagtggc acctgtcctg ggcaaaatc ccaggacaga cctcattgtt cctctgtgg aatacctccc caggaggcca tctgtgatt ccccttgca acccaggtca gaagtctcat cgtcaaggtt gtttcatctt tttttctctg tctaacagct ctgactacca cccaaccttg aggcacagtg aagacatcgg tggccactcc aataacagca ggtcacagct gctcttctg aggtgtccta caggtgaaaa gccacgcgac cagtcagga ttttaagtta cctcaaaaat ggaagatttt	Homo sapiens

aacatggaga gtgacagctt tgaagatttc tggaaagggtg aagatcttag taattacagt
tacagtctta cctgcccc tttctacta gatgcgccc catgtgaacc agaattccctg
gaaatcaaca agtattttgt ggtcattatc tatgcctgg tattcctgct gagcctgctg
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gtctacctgc tgaacctagc ctggccgac ctactctttg cctgacctt gccatctg
gcgcctcca agtgaatgg ctggattttt ggcacattcc tgtgcaagggt ggtctcactc
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gcaaaactggc gtagctgtt acggatcctg cccagtcct ttggcttcat cgtgccactg
ctgatcatgc tgtctgcta cggattcacc ctgctacgc tgtttaaggc ccacatgggg
cagaagcacc gggccatgc ggtcatcttt gctgtcgtcc tcatcttct gctctgctgg
ctgcccatac acctggtcct gctggcagc acctcatga ggaccagggt gatccaggag
acctgtgagc gccgcaatca catgaccgg gctctggatg ccaccagat tctgggcac
cttcacagct gcctcaacc cctcatctac gcttcatgg ccagaaagt tgcctatgga
ctcctcaaga ttctagctat acatggcttg atcagcaagg actcctgcc caaagacagc
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386	14198	Interleukin-8 Receptor B	NP_001548.1	MEDFNMESDS LSLLGNSLVM VWSLLKEVNF LLFRRTVYSS AHMGQKHRAM ILGILHSCIN	FEDFWKGEDL LVILYSRVGR YSGILLIACI NVSPACYEDM RVIFAVVLIF PLIYAFIGQK	SNYSYSSTLP SVTDVYLLNL ATRTLTQKRY GNNTANWRML LLCWLPLYNLV FRHGLLKILA	PFLDDAAPCE ALADLLFALT ATRTLTQKRY LRILPQSEGF LLADTLMRTQ IHGLISKDSL	PESLEINKYF LPIWAASKVN IVKFICLSIW IVPLLIMLFC VIQETCERN PKDSRPSFVG	VVIYALVFL P GWIFGTFLECK GLSLLALPV YGFLLRTLFLK HIDRALDATE SSSGHTSTTL	Homo sapiens
387	14641	Calcitonin Receptor	NM_001742	cagaattcca gtgcttgcca tcaaacctat gatggatgca aggtccatat agtattgtcc tacaaaaatc gtccaaactat gtactatttg gattttcgtg tcttacttac tggagagctc catgatggcc tgtcgtggct gttcccgctg ctgctggctg acttggtgct ggaaacccat tgtgccccctg tgggaagata gaccatctac attcaaaatt tgacgcogct gaatgaacca agagcaagag catttccctgg tatcatttgt ttggtaactgt tccatcattc aaaaacaatg tatacccttg ttagattatt ttctgatgtt ctctgcaaga tgcattttggc	ggacaaaagag gtgtttcttc ccaacaatag cagtacaaat tgcaaatcgca tatcagttct tgtgatgaaa actatgtgca gctatttgtg tttttcaggga attctgaatt gtcggaagg tgcaactatt gtgtttactg gtgccaacca agtgtggaaa aatttcttct gagggcggaat ctgggaatcc tatgtattacg tgcttctgca cagtggaacc gctgcggagg gccaacaacc tcattctgctt gagaaagacc gaagaattat tgctttggga atccaggact aaattgacct aaatattaaa tctgtatttg actgagatgt caaagcggct aggaagatgt	atcittcaaaa ttctaaatca agcccaagcc gctatgaccg cctgggatgg gccagatta aaggtgtttg atgctttcac gtcaattttc gcctgagaaa ctatgattat accoggtgag tgtggatgct agaagcaacg ctatccatgc ccatttgtct tttggctcaa ccacatgta agtttgtcgt tgatgcactc acaatgaggt agcgttgagg ctggcgacat aaggcgagga gaatgtgaag atgcatttaa tcagtgaatt gacagtctag gagatgcaaa agttcagata atcactgtca gctatggatc tttaccatcc ttctaataga tgcattttgaa	atcaaaaatg atcttctctg atctctttac atctctctct tattatctct gccgtgtact ttacataatc catgttcggg cattgtccgg cctgaaggct ctttccctgg tctgattcat ccaaccacc gtgaagcgcc tccaaccgct agggcgcccc cccaatttac gagtgcctgag gcaaacacag agtaattctc tgtccattgt gaatggaag tgccactgca tgtcacagta caggggtgctc cttgtcaata ttttaaactct tttttttaa tttttttaa ttacaaatga aatatgtgaa tgcaaaagaa	aggttcacat atcttctctg gtcgtaggac ttaccgcgat aatgcagcag atggctgtgc tttgatccat cctgaaaaa ctgaaaaaca ctgaagaatg accctagtga accctgcaca ctggttgaag ttgcattttt atctatcttc atcacactcat tgggctgggg tcaatgacaa ccatgatcct ccataaatgag gtgaaggcca acaagatgct tctttgttgc aatgggcccc ctgctcgcg aggagctgag tgaatatcat actgagccat catcgtgatc atccctccag gaaccgaaac aaagtatttc acttgtgaac agtatcaaa ctgagccatt ggattttgaa tttcagtcac actacgtgac gaaaaagacc aatttgtga	Homo sapiens	

388	14641	Calcitonin Receptor	NP_001733.1	<p> aaacattaca tgctcagctt ggttttggac aagcctgtcc attgggcagg acctagctgt tgtaagaat tggctttaat gttgaatgta ttttgggtgc tgatgtttat aaactgagag gtcacaaaga atctataact aaaaattttt acaaaatgc caaaaatata attcttagtg gaagacaata ctccctttaa agagagtttg ccaactccct aaaactcagg atttataaag caaattactc caaggtttat aaagcagatt acctcttgcc ctgggtgct atctagcagt aaaagataaa ttgttgaat attgtaatt aaaagactcc acataagtcc attaactgct ttccaccag ctcaaaagct taaaagagc tcaggctttt ccaggaagat ccaggagggc taattagaaa tcaacttggt gttgaccgt tgtttcttgt tattaccaaa caggagggga aaaaattaac tgcctcaaat ttaaccataa atcaattcat gtttaacgtt tctcattaaa atccagtatt atattatcat atctctctt acttcccatg ataagatttt tgaataatcct gaataaacca gtatcggttac tggcacctga aattaatttg tgaatttgca acagtaatca gagttaccat tatttaattt gtatgctaaa tgaggaggta cattgaaacc ctccaaatct ccagtctcat ctatgtcata ttttgccact gcttttcaga agtgatttag ttgtggaaaag ataataaatt gatttggtat ggtacatat tttagccacc cagagaaaaat taattatatt tctacagaga aaatgaattt gggatactaa agtagtttaa gtctccttta ctgaatgtaa ggggggggtc gaaaagaagg tatttttcca atcacagtgt tatgtagtat tgtctatatt ttgtttacaa acatggaaaa cagagtattt ctggcagctg tggtaacaaat gtgataatat attgctaaaa tattttagat gttattatgc taatatagta ggggttgaaag aaaaacaaat agcttattat agaattgcac atagttctgc ccaaatatgt tgaatgtctt atgcttgtgt atatgtataa ataatacag agtacgttaa aagcaaaaaa atgtatatatt gcataatttt ctaaagaaat atattattca tcttttcatt c </p>	Homo sapiens
389	16041	C-C Chemokine Receptor 6	NM_004367	<p> MRFTTSRCL ALFLLLNHPT PILPAFSNQI YPTIEPKPFL YVVRGKKMMD AQKCYDRMQ P QLPAYQGEPP YCNRTWDGWL CWDDTPAGVL SYQFCPDYFP DFDPSEKVTK YCDEKGVWFK HPENNRWTSN YTMCAFTPE KLNAYVLYY LAIVGHSLSI FTLVISLGIF VFFRSLGCQR VTLHKNMFLT YILNSMIII HLVEVPNGE LVRRDPVSCK ILHFFHQYMM ACNYFWMICE GIYHLTLIV AVFTEKQRLR WYLLGWGFP LVPTTHAIT RAVYENDNCW LSVETHLLYI IHGPVMAALV VNEFFLLNIV RVLVTKMRET HEAESMYLK AVKATMILVP LLGIQFVFP WRPSNKMGLK IYDYVMHSLI HFQGFVATI YPCNNEVQT TVKRQWAQFK IQWNQWGRR PSNRSARAAA AAAEAGDPI YICHQELRNE PANNQGEESA EIIPLNIEQ ESSA caaacgttcc caaatcttcc cagtcggctt gcagagactc ctgtctccca ggagataacc A agaagctgca tcttattgac agatgtcat cacattggtg agctggagtc atcagattgt ggggcccgga gtgaggtga agggagtga tcagagcact gcctgagagt caccctact ttcctgtcac cgctgcctgt gactgaagg ggcctgaacca tacactcctt tttctacaac cagcttgcat ttttctgcc cacaatgagc ggggaatcaa tgaatttcag cgaatgtttc gactccagt aagattattt tgtgtcagtc aatactcat attactcagt tgattctgag atgttactgt gctccttgca ggaggtcagg cagttctcca gcctatttgt accgattgcc tactccttga tctgtgtctt tggcctcctg ggaatatctc tgggtgtgat cacccttgct ttttataaga agccagggtc tatgacagac gtctatctct tgaacatggc cattgcagac atcctctttg tcttactct cccattctgg gcagttagtc atgccactgg tgcgtgggtt ttcagcaatg ccacgtgcaa gtgtctaaa ggcattctatg ccatcaactt taactgcggg atgctgctcc tgacttgcat tagcatggac cgttagatcg ccattgtaca ggcgactaag </p>	Homo sapiens

tcattccggc tcgatccag aacactaccg cgcacgaaaa tcactgcct tgtgtgtg
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390 16041 C-C Chemokine Receptor 6 NP_004358.1 Homo sapiens

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MSGESMNFSD VFDSSDYFV SVNTSYVSVD SEMLLCSLQE VRQFSRLFVP IAYSLLICVFG P
 LLGNILVVIT FAFYKKARSM TDVYLLNMAI ADILFVLTLP FMAVSHATGA WVFSNATCKL
 LKGIYAINFN CGMLLLTCS MDRYIAIVQA TKSFRLRSRT LPRTKIICLV VMGLSVLISS
 STFVFNQKYN TQGS DVCEPK YQTVSEPIRW KLLMLGLELL FGFFIPLMFM IFCYTFIVKT
 LVQAQNSKRH KAIRVIAV LVFLACQIPH NMVLLVTAAN LGKMNRSQS EKLIGYTKTV
 TEVLAFHCC INPVLAFIG QKFRNYFLKI LKDLWCVRK YKSSGFSCAG RYSENISRQT
 SETADNDNAS SFTM

391 16599 Smoothened NM_005631 Homo sapiens

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393	17250	G Protein- Coupled Receptor GPR45	NM_007227	AGDSRCQGAW TLVSNPFCPE PSPQDPFLP SAPAPVAWAH GRRQGLGPIH SRTNLMDEL MDADSD	atggcctgca acagcacgtc ccttgaggct tacacatacc tgctgctgaa caccagcaac A gcctcagact cggggtccac ccagttgccc gcacccctca ggaatcctt ggccatagtg atgctgctga tgaccgtggt ggggttccctg ggcaacactg tggtctgcat catcgtgtac cagaggccgg ctatgcgctc ggccatcaac ctgctgctgg ccaccctggc cttctccgac atcatgctgt cctctgctg catgcccctc accgcctgca cctcctacac cgtgcgtgg cacttgggg accacttctg ccgctctca gccacgctct actggtttt tgtcctggag ggcgtggcca tcctgctcat catcagcgtg gaccgcttc tcatacctg ccagcgccag gacaagctga acccgcgag ggccaaagtg atcatcgcg tctcctgggt gctgtccttc tgcatcgcgg ggcctcgtc cagggctgg acgctggtgg aggtgcggc gcgggcccc cagtgcgtgc tgggtacac gagctccc gctgaccgc catacgtgt cacttggtg gtggcctgt tcttcgccc ctttgcgctc atgctgtgc cctacatgt catcctcaac acggtccgca agaagcctg gcgctgcac aacagtcgg acagcctgga cctgcggcag ctcaccagg cggcctgcg gcgctgcag cggcagcaac aggtcagct ggacttgagc ttcaagacca agccttcac caccatcctg atcctcttcg tgggtcttc cctctgctgg ctgcccact ccgtctacg cctcctgtct gtgttagcc agcgtttta ctgcggttcc tccttctacg ccaccagcac ctgcgtcctg tggttcagtt acctcaagtc cgtctcaac cccatcgtct actgctggag aatcaaaaa ttccgcgagg cctgcataga gttgctgccc cagaccttc aaatcctccc caaagtgcct gagcgatcc gaaggagaat ccagccaagc acagtatacg tgtgcaatga aaaccagctc gcggttag	Homo sapiens
394	17250	G Protein- Coupled Receptor GPR45	NP_009158.1	MACNSTSLEA YTYLLNTSN ASDSGTQLP APLRISLAIV MLLMTVVGFL GNTVVCIIIV P QRPAMRSAIN LLLATLAFSD IMLSCLCMPE TAVTLITVRW HFGDHFCLRS ATLWFFVLE GVAILLIISV DRFLIIVQRQ DKLNPRAKV IIAVSWVLSF CIAGPSLTGW TLVEVPAPAP QCVLGYTELP ADRAVYVTLV VAVFFAPFGV MLCAYMCIIN TVRKNVVRVH NQSDSLDLRQ LTRAGLRLQ RQQVSVDSL FTKAFTTIL ILFVGFSLCW LPHSVYSLLS VFSQRFYCGS SFYATSTCVL WFSYLSKSVFN PIVYCWRIKK FREACIELLP QTFQILPKVP ERIRRIQPS TVYVCNENQS AV	Homo sapiens	
395	17345	G Protein- Coupled Receptor D6	NM_001296	ggtcttatga gctgctattg aaacggcgag agcctggttg tgacctgcac acaggagccc A tccagtcagt actgattgaa ttactcaagg ctgcctctct gcaaatgtga gcactacagg acgtcgggac tgggcatctt ctccaacat ggcgcacct gcctctcgc agccactcgc cactgagat gccgattctg agaatagcag cttctattac tatgactacc tggatgaagt ggccttcagt ctctgcagga aggatgcagt ggtgtccttt ggcaaatgt tectccagt cttctatagc ctgatttttg tgtgggctt cagcgggaac ctctctctt tcatggtctt gctccgttac gtgcctcgca ggcggaatgt tgagatctat ctgctgaatc tggccatctc caaccttctg tttctggtag cactgcccct ctggggcatc tccgtggcct ggcatgggt cttcggggagt ttcttgtgca agatggtgag cactctttat actattaact ttacacagtg catcttttc attagctgca tgagcctgga caagtacctg gagatcgttc atgctcagcc ctaccacagg ctgaggaccc gggccaagag cctgctcctt gctaccatag tatgggctgt gtccctggcc gtctccatcc ctgatatggt ctttgtacag acacatgaaa atcccaagg tgtgtggaac tgccacgcag atttcggcgg gcatgggacc atttgaagc tcttctctcg	Homo sapiens	

Homo
sapiens

P

NP_001287.2

G Protein-
Coupled
Receptor D6

396

17345

cttcagcag aacctcctag ggtttctcct tcaactcctt gccatgatct tcttctactc
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 MAATASPQPL ATEDADSENS SFYYDYLD VAFMLCRKDA VVSFGKVFLP VFYSLIFVLG
 LSGNLLILMV LLRYVPRRM VEIYLLNLAI SNLLFLVTLF FWGISVAWHW VFGSFLCKMV
 STLYTINFYS GIFFISCM SL DKYLEIVHAQ PYHRLRTRAK SLLLATIVWA VSLAVSIPDM
 VFVQTHENPK GVMNCHADFG GHGTIWKLF RLQONLLGFL LPELLAMIFFY SRIGCVLVR
 RPAGQGRALK IAAALVVAFF VLMFPYNLTL FLHTLLDLQV FGNCEVSQHL DYALQVTE
 AFLHCCFSP I LYAFSSHRFR QYLKAFIAAV LGWHLAPGTA QASLSSCSES SILTAQEEMT
 GMDLGERQS ENYPNKEDVG NKSA
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Homo
sapiens

A

NM_001470

Gaba (b)
Receptor. 1

397

17535

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398	17535	Gaba (b) Receptor 1	NP_001461.1	<p> catgtgagt catgtctttc ctatttgac acgttccatgt ttatccatgt actttccctg tgtaccctcc atgtaccttg tgtactttct tccctaaat catggtattc ttctgacaga gccatatgta cctacccttg cacattgta tgcactttc cccaattcat tttggtg99 gccatccaca cctctcctt gtcacagaat ctccattct gtcagattc cccccatctc cattgcattc atgtactacc ctacagtac ctccacaatc atcttctccc aagactgctc ccttttgttt tgtgtttttt tgagggaat taaggaaaaa taagtgggg caggtttgga gagctgcttc cagtgatag ttgatgagaa tccctgaccaa aggaaggcac ccttgactgt tggtatagac agatggacct atgggtggg agtggtgtc cctttcacac tgtggtgtct cttggggaag gatctcccg aatctcaata aaccagtga cagtgtgact cggcaaaaaa aaaa </p>	Homo sapiens
399	17666	Glucagon-Like Peptide 1 Receptor	NM_002062	<p> gaattccggg ttgtgcatc cactctgaa ccgctcgtgt gtggcctgtc ggaatgacat A cgccctcatc agtctccgca cggcttccc aggtggcagc gatggcccag tctgaactc ccgcccattg ccggcgcccc cggcccgctg cgccttgccg tctgtctgt cgggatggtg ggcaggcccg gcccccgc ccagggtgcc actgtgtccc tctgggagac ggtgcagaaa tggtcgagaat accgacgcca gtgccagcgc tccctgactg aggatccacc tctgcccaca gactgttct gcaaccggac ctccgatgaa tacgctgctt ggcacagatg ggaagccaggc tcgttcgtga atgtcagctg cccctggtac ctgcccctgg cccgacaggtt gccgagggc cacgtgtacc ggtctcgac agctgaaggc ctctggctgc aagaggacaa ctccagcctg ccctggaggg acttgtcgga gtgcagggag tccaacgag gggagagaaag ctccccggag gagcagctcc tgttctctta catcatctac acggtgggt acgcactctc ctctctgtct ctggttatcg cctctgcgat cctcctggc ttcagacacc tgcactgcac caggaactac atccacctga acctgtttgc atcctctatc ctgctgagcat tctccgtctt catcaaggac gcagccctga agtgatgta tagcacagcc gccagcagc accagtggga tgggtcctc tctactctgg actctctgag ctgccgctg gtgtttctgc tcatgcagta ctgtgtggcg </p>	Homo sapiens

400	17666	Glucagon-Like Peptide 1 Receptor	NP_002053.1	MAGAPGRL ALLLGMVGR AGPRQGV SLWETVQKWR EYRRQCQRL TEDPPATDL P	Homo sapiens
				FCNRTFEYA CWPDEPGSF VNVSCPWYLP WASSVPQGHV YRECTAEGW LQDNSSLPW	
				RDLSECEESK RGERSSPEEQ LLFLYIIYTV GYALSFSAIV IASAILLGR HLHCTRYIH	
				LNLFASFILR ALSVFIKDA LKMMYSTAAQ QHWDGLLSY LDSLSCLVF LLMQYCVAA	
				YYWLLVEGVY LYTLAFSVL SEQWIFRLVY SIGMGVPLLF VVPWGVKYL YEDEGWTRN	
				SNMNYWLIIR LPILFAIGN FLIFRVICI VVSKLANIM CKTDIKRLA KSTLLIPLL	
				GTHEVIEAFV MDEHARGTLR FIKLFTLSF TSFQGLMVAI LYCFVNNEVQ LEFRKSWERW	
				RLHLHIQRD SSMKPLKCPT SSLSSGATAG SSMYATCQA SCS	
401	18471	G Protein-Coupled Receptor LOC51210	NM_016372	gccttgca tggagatgct tagctgaggg ggtggctttg tttagactatt tgcaggtcgt A	Homo sapiens
				gagatagagc ctgagatggg ggactggggc cctgcctggg ggattgggtc gtgacctgtg	
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				aagcttccat ctgctcgggc gaagatccgc atacctcca gccccattt tatcacctc	
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				ttcctgctgg ccatcgagct gagtgtgac atcctgggccc tggcctttgg cactggggag	
				agtaagtcca gcatcaagcg ggtgctggcc atcacacag tgctgtccct ggccactctt	
				gtcacccagg ggaacctgga gactctgtac cctgatggcc atctctcagc tgaggacttt	
				aatatctatg gccatggggg gcgccagttc tggctggctca gctctgctt ctctctctg	
				gtctactctc tgggtgtcat ccttcccaag acccccgctga agagcgcat ctccctgct	
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				ctggggagtg tgctgctgtg cttcgacatc atcgaggggc tctgctgtgt agatgccaca	
				accttctgt acttcagctt ctctgctccg ctcatctacg tggctttcct ccggggcttc	
				ttcgggctcg agcccaagat cctcttctcc tacaatgac aagtggacga gacagaggag	

402	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	MDTLEEVTTWA NGSTALPPPL KIRITSSPIF ITFYILVFW ALVGIARAVV SMTVSTSNAA TVADKILWEI TRFFLLAIEL SVIILGLAFG TWESKSSIKR VLAITTVLSL AYSVTQGTLE ILYPDAHLISA EDENIYGHGG RQFWLVSSCF FFLVYSLVVI LPKTPLKERI SLPSPRSFYV YAGILALLNL LQGLGSVLLC FDIIEGLCCV DATFLYFSF FAPLIYVAFI RGFFGSEPKI LFSYKCOVDE TEEDVHLPO PYAVARREGL EAAGAAGASA ASYSTQFDS AGGVAYLDDI ASMPCHTGTGSI NSTDSERWKA INA	Homo sapiens
403	19072	G Protein-Coupled Receptor Ls19072	LG100650	agtgatgagc ggcggtgccc tggcagtgca gtgggctggc tggatgtgtg gggcctctcc A ctgctggcca atgcctggg cctcctcagc gttggcgcca agcagaagaa gtggaagccc ttggagttcc tgcgtgtgac actgcggccc accacatgc taaatgtggc cgtgcccac gccactact ccgtggtgca gctgcggcgg cagcgccccg acttcgagtg gaatgagggg ctctgcaagg tcttcgtgc cactctctac accctcacc tggccacctg tttctctgtc acctccctct cctaccaccg catgtggatg gtctgctggc ctgtcaacta ccggtgagca tgtgaagttc tggggttctt ggggttctaa gcaggcgtga aaacaaagac atatctgggtg tgcccatggc cacacaggag tggccacac ctggcgatgc tgggagggca ggcaggctca ggaggggctg ctgtaagctg ctgggggcat acacgtagct ttgcatgggt agacacaagc agccaataca gaatgcttg aagaggggacg tgtgacaaatg ttcacagtat ctoctatgca aggaacaagg cctgcccaca ctggctgtgc catgactatg atatactggg ggtgtgggggt gcctgggtgg tgcggatccc ctacaggctc ccaggagcct ggggagggcc tgtgggtgac gccagatccc tctgttccac cctgcctcat gccaggctga gcaatgccc aaagcaggcg gtgcacacag tcatgggtat ctggatgggt tccctcatcc tgtcggccct gcctgccgtt ggctggcacg acaccagca gcgcttctac acctatggct gccgcttcat cgtggctgag atcggcctgg gctttggcgt ctgcttcccg agcgtgggtg gcggcagcgt ggcctatggg gtgatctgca cagccatcgc cctcttccag agcgtgggg tgcagggtgg ccgcccaggcc gaccgcccgc ccttcaccgt gccaccatc gtgggtggag acgcgcaggg caagcggcgc tccctccatg atggctcgga gcccgcacaa acctctctgc agaccaggg cctcgtgacc accatagtct tcatctacga ctgcctcatg ggcttccctg tgcgtgtggg tgacggcgctc gggtagagg gctgtctct gggacagccc tgggctgtgt catactccag gcacaggtg gtgagtcct cagaccacat cctttgagat gggcttgatc atcgtcccca ttttccagat	Homo sapiens

404	19072	G Protein- Coupled Receptor	ENSP00000016 4265	<p> ttggaaaccc aggttcagag aggtgtaaa agtgcctag acctgcctag agtcaggga gcctgggtggg acttgaaccc acatccggca actgcagggc ccaggtccta gctgctacag tgcagaagag ttactccccc ttgcccagg cccattttt tgtttttgtt ttactttatt tattttattta tttttgagac agagttttgc tcttgttggc caggctggat gtgcaatggc acaatctcag ctcaactgcaa cctctgctc ctgggttcaa gcgagtctcc tgcctcagcc tccaagtacg tgggattaca ggtgcccgt gccacgctg gctaatttt tttttgtatt ttttagtacg acaggttttc accatgttag tcaagctgggt ctgaaactcc tgacctcagg tgatctgccc atctcagcct cccaaactgc taggattaca agcgtgaacc actgcatctg gcctcaaggg ccgtttgatg cagaggtagg atagcatacc catgggtttc ctggtgggtc caggtccacg gatggacaga gggagctttg gtgccgtagg taggtaggta ggggcgcagg atcaggagac agagcaaggc cagggcgggc ctcaaatgtc tgttggggag ttgcacttga tactaacggc tggggaaggc caaggtgagg gctgctgtga gaaaggcctt gccgacaaa gttcaggtc cagagggggt gcttgggtc ctcttgggtg agcttggacc agcttggccc aagaatgaag tctggactca gtgccaacc cctgccccct gcaggactct acgcccacc ccgaaaggctc tgcagtga gaaggagagg actggggcaa agaccagcct gaggggtttc atccaagcag caggcaagac tgccttccct gagccattgc agacatgag gacatgagct ccagaatggt gactcggggg gtggcagctt cagagtcagg gccttgctca ggaggcagcc cccactgccc ccccccagc aggcctggtt ctccccagct aagggtcctc atgtgtacag tgggggtctgg cagcccggtc cctgtgcaga tggaggggcag gggcttcattg aaacagcaga gaccacaag gcacctcggg agcagagtgg gggcagtggt ggggagaggc ggggctggga gggagtcaga accaccctg cgtctcttac ggacggggaa gaggttacag cttgtggggc cactccatgc tgcgtttata aagcgtccgg agtcttcacc ctctagagca tggcctgttc ttageccatt ttccagatga agaaactgag ccccaaggg gttagcagc tttctgagg tcaactgtggc cacaacaggc agaataca taccacatc ctccactt tcaactttt gtggcagtca cttaagcatc actcttttgg acagagcaac gagggctatc ctgggagagg agaatgtcag ggaccacaaa gcaggggtag ggtgaggag gccactggcc gggaaggggg tggtagaatc ttgaacaggc ttgagacctg gtctctaa cctcagtttc ctcatctcaa aaaggggatg gcagccgggc acagtgttc ataccgtta tcccagcact ttggaggcc gaggcaggag gatctcttaa gccaggaga tggaggctgc agtgagccat gattgagcca ctgcactcca gcctgggtga cagaatgaga ctgtctcaa acaaggcggg gaggaggtgg taatccatgc cccacttctc tccatgggca gccaggagga agacagagca agccaccca gtgctgccc gtaggccagt agtccccga aggcggggc tcccactgcc acgtccagc tctttctcc ccaaggggcc ctctccttg gcagataccc acctgtcaga cctgccgtac acatggggag accgagactc agggggagct tgtgtgatg tgggggggtcc tgcaggtgcc aggcagacc ctgtgccac aggtggtgag cttcagcagc ctgcccggcc agcctcagc gccctggatg gcaactgcg tgcgtggtg ctcctgagg caggccctgc tgcctgctgt gtctcctgg gcctgcgacc gctaccgggc tgacctcaa gctgtccggg agaagtgcac ggcctcatg gccaacgac aggagtcaga cgatggt </p>	Homo sapiens
				<p> SDERRLPGSA VGWLVCGLS LLANAWGILS VGAKQKWKPK LEFLCTLAA THMLNVAVPI P ATYSVQLRR QRPDFEWNEG LCKVFVSTFY TLTLATCFVS TSLSYHRMMW VCWPFVNYRLS NAKKQAVHTV MGIWMVSFIL SALPAVGWHD TSERFYTHGC RFIVAEIGLG FGVCFLLLVG </p>	

405	19501	G Protein- Coupled Receptor KIAA0758	AB018301	LS19072	GSVAMGVICT ATALFQTLAV QVGRQADRRRA FTVPTIVVED AQGKRRSSID GSEPAKTSLQ TTGLVTTTIVE IYDCLMGFPV LVWSFSSLRA DASAPWMLC VLWCSVAQAL LLPVFLWACD RYRADLKAVR EKCMLMAND EESDDG	gtgcaagaag aaaatagatg ttatgccccat ccaaatattg gcaaatgaag aaatgaaggt A gatgtgcgac aacaatcctg tatctttgaa ctgtgtcagc cagggtaatg ttaattggag caaagttagaa tggagcaggg aaggaataat aaatattcca ggaacccctg agacagacat agattctagc tgcagcagat acacccctcaa ggcctgatgga acccagtgcc caagcgggtc gtctggaaca acagtcacat acacttgta tcatctctgt ggccaatcta acaataaccc cggacccaat tgcaaacata aaagtgcacat tcatctctgt tcatctctgt tcatctctgt tcatctctgt ttctgtttct gagggacaaa acttttctat aaaaatgcac agtgatgtga gtaactatga tgaggtttat tggaaacctt ctgctggaat taaaatatac caaagatttt ataccacgag gaggtatctt gatggagcag aatcagttact gacagtcacg accctgacca gggagtgga tggaaacctat cactgcacat ttagatataa gaattcctac agtattgcaa ccaaagacgt cattgttcac ccgctgcctc taaagctgaa catcatggtt gatcctttgg agctactgt ttcatgcagt ggttcccatc acatcaagt ctgcataagc gaggatggag actacaaagt tactttccat atgggttctt catcccttcc tctgcacaaa gaagttaaca aaaaacaagt gtgctacaaa cacatttcca atgcaagctc agtttcttgg tttcaaaaaa ctgttgatgt gtgtgttcac ttaccacatg ctgctaataa ttcagtttgg agcccatcta tgaagctgaa tctgttctt ggggaaaaa tcatatgcca ggatcccgta atagtgctg gagagccggg gaaagtcac cagaagctat gccggttctc aaagtttccc agcagccctg agagtccat tggcgggacc atcacttaca atgtgttagg ctcccagtg gaggaaga gaaatgactg catctctgcc ccaataaaca gtctgctcca gatggctaag gctttgatca agagccctc tcaggatgag atgtctctc cacaacctgaa ggtatcttct attagcatag acaagcggg acatgaaatc agctcttct ctggagctct gggagccatt attaacatcc ttgatctgct ctcaacagtt ccaacccaag taatttcaga atgatgacg cactgtctct ctacggttaa tgatctctt ggcagagccg tttgaaacac ctggaaggtt ttacaacagc aatggacca tcagagttca cagctactac attcagtgga agattttcc caagcattac agtcagagga tagccctct ttgtccttct ccaaaactaa tgtgcagatg agcagcacgg taatcaagtc cagccaccga gaaacctatc aacagaggtt tgttttccc tactttgacc tctggggcaa tgtgttcatt gacaagagct atctagaaa ctgagctgc gatttgtcta ttgtcaccat ggctttccca actctccaa ccactctgc tcaggatatac caggaaaaata actttgcaga gagcttagtg atgacaacca ctgtcagcca caatacagat atgccaattca ggatttcaat gacttttaag acaaatagcc ctccaggggg cgaaacgaag tgtgtcttct ggaacttcag gcttgccaac aacacagggg ggtggggacg cagtggtgtc tatgttgaag aaggtgatgg ggacaatgtc acctgtatct gtgaccacct aacatcattc tccatctca tgtccctga ctccccagat cctagtctc tctgtggaat actcctggat attatttctt agtttgggtg gggttttcc atcttgagct tggcagcctg tctagtgtg gaagctgtgg tgtggaatc ggtgaccaag aatcgactt cttatatg ccaacacctg atagtgaata tgcctgcctc cctctgtg gccaacacct ggttcattgt ggtcgtgccc atccaggaca atcgtacat actctgcaag acagcctgtg tggctgccc cttcttctc cacttctt accctcagct cttcttctg atgctgacac tgggctctat gctgttctt cgcctgtgtt tcattctgca	Homo sapiens
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406	19501	G Protein- Coupled Receptor KIAA0758	BAA34478.1	<p> tgaacaagc aggtccactc agaaagccat tgccttctgt cttggctatg gctgcccact tgccatctcg gtcatacgc tggagccac ccagcccg gaagtctata cgaggaagaa tgtctgttg ctcaactgg aggacacca ggcctgtcg gcttcgcca tccagcact gatcattgtg gtgtgaaca taaccatcac tatttgtgc atcaccaaga tccagagcc ttccattgga gacaagccat gcaagcagga gaagagcagc ctgtttcaga tcagcaagag cattgggtc ctacaccac tcttggcct cacttgggt tttgtgtc tccactgtgtt ccagggacc aacctgtgt tccatcatc atttgccatc ctcaatgtct tccagggatt attcatttta ctcttggat gcctctgga tctgaagta caggaagctt tgtgaataa gttttcattg tcgagatgtt ctacacagca ctcaaatgca acatccctgg gtccatccac acctgtgtt tctatgagtt ctccaatc agggagattt acaaatgtt ttggtaaaaac aggaacgtat aatgtttcca cccagaagc aaccagctca tccctggaaa actcatccag tgcttctcg ttgtcaact aagaacagga taatccaacc tacgtgacct ccggggaca gtggtgtgc ttttaaaag agatgcttc aaagcaatgg ggaacgtgtt ctcgggcag gttccggga gcagatgcca aaagacttt tcatagaga agaggttctc tttgttaaa acagaataaa aataattgtt atgttctgt ttgttccctc cccctcccc ttgtgtgata ccacatgtgt atagtattta agtgaaactc agccctcaa agcccaactt ctctgtctat attgtaatat agaatttca agagacattt tcaatttta cacattggc acaagataa gctttgatta aagtagtaag taaaaggcta cctaggaaat acttcagtga attctaagaa ggaaggagg aaggaaggaa ggaagaaag gaggaaagaa gaaaagaaag aaaaagagaa agatgaaat aggaacaaat aaagacaaac aacattaagg gccatatgt aagatttcca tgttaatgat ctaataat cactcagtc aacattgaga atttttttt taatggctca aaaaaggaaa ctgaaagcaa gtcatggga atgaatact ttggcagtat cttctgatg tcttcttag taagaggagg aaaaaaggc tgaataata gggaggaaat tcttcatca gaacgactc aagtgataa caataattat agaaatgaa tggaaaggaaa tatgatctc ctgagactaa ctttgtatgt taaggtttga actaagtga tgtatctgca gaggaagtat tataaagata tgtcattaga tccaagtgtc gattaaattt ttatagttta tcagaaaaag cttatatatt agttgttcc acattttgaa agcaaaaaat atatattga tataccctc aattgccaaa ttgtatatgt tgcactgaag acagaccctg tcatatatt aatggctca agcaggtact tctctgtgca ttatagaata gattttaata atcttatagc attgtatatt attattgctg ttgtcactgt tattattatt ttgtgatactg gcccttggtg tgttgcatag cctccatgtt attctctgtt tccatcttta agttcccaga ccaatataca ttaagagttt tgcattgtct aaattgtgtt tattccaacc acgtggaaa ctctggaaa gaaattttac attcgtgtgt tctgtgctc taatgacact tgacctgtt gaacaaatgg cagagccttt ccaaggatt tgattgttt tgaattatct gcatgtgctg tttttttgg tgtgtattt ataaaaaat ataaatttt atg </p>	<p> Homo sapiens P NIPGTPEDI ANLITPDPI TVKSTREWN CIEEDGDYKV SVWSPSKLN SQTFTNAANN GGTITYKCVG SQWEEKRND </p>
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407	21632	G Protein- Coupled Receptor Ls21632	AB040964	ISAPINSLQ MAKALIKSPS QDEMLPTYLK DLSISIDKAE HEISSSPGSL GAINIILDL STVPTQVNSE MTHVLSTVN VILGKPVLTN WKVLOQWNTN QSSQLHSVE RFSQALQSGD SPPLSFQTN VQMSSTVIKS SHPETYQORF VFTYQORF VVIDKSYLEN LQSDSSIVTM AFPTLQAILA QDIQENFEAE SLVMTTIVSH NTPMPERLM TFKNNSPSGG ETKCVFWRNFR LANNTGGWDS SGCYVEEGDG DNVTICIDHL TSFSLMSPD SPDPSSLLGI LLDIISYVGV GFSILSLAAC LVVEAVVWKS VTKNRTSYMR HTICIVNIAAS LLVANTWFIV VAAIQDNRYI LCKTACVAAT FFIHFFYLSV FFWMLTLGLM LFYRLVFIHL ETSRSTQKAI AFCLGYGCP AISVITLGAT QPREVYTRKN VCWINWEDTK ALLAFAPAL IIVVNITIT IIVITKILRP SIGDKPCKQE KSLFQISKS IGVLTPLLGL TWGFGLTTFV PGTNLVFIHI FAILNVFQGL FILLFGCLWD LKQAEALLNK FLSLRWSSQH SKSTSLSGSST PVFSMSSPIS RRFNNLFGKT GTYNVSTPEA TSSSLENSSS ASSLIN	accacctcat cccgtcccta cgccaagtgg tgttccaggg ggatcggctg cccttccagt gctctgccag ctacctggc aacgacaccc gcatccgctg gtaccacaac cgagcccctg tggagggtga tgagcaggcg ggcattcctc tggccgagag cctcatccac gactgcacct tcatcaccag tgagctgacg ctgtctaca tcggcgtgtg ggctcaggc gactgaggag gcaccgtgtc catggcccaa ggcaacgcca gcaagaaggt ggagatcgtg gtgctggaga cctctgctc tctactgccc gccgagcgtg ttgccaacaa ccgcggggac ttcaggtggc ccgaaactct ggctggcatc acagcctacc agtctgctt gcagtatccc ttcacctcag tgccctggg cgggggtgccc cggggacccc gagctgctgac cgtgcccggc gctgggagcc aggggactac tccactgtc tctacacaa cgacatcac aggtgtgtgt acacctctgt gctgatgcc atcaatgctt ccaatgctt gacctggct caccagctgc gcgtgtacac agccgagcc gctagctttt cagacatgat ggatgtagtc tatgtgctc agatgatcca gaaattttt ggttatgtc accagatcaa agagctgta gaggatgatg tggacatggc cagcaacctg atgtgtgtg accagacat gctgtggctg gccagcgcg aggacaaggc ctgcagccg atcgtgggtg ccctggagcg cattgggggg gccgccctca gcccccatgc ccagcacatc tcaatgaatg cgaggaacgt ggcatggag gcctacctca tcaagccgca cagctacgtg ggctgacct gcacagcctt ccagaggagg gaggaggagg tgccgggac acggccagg agcctggcc agaaccccc accctgagccc gagccccag ctgaccagca gctccgctc cgtgcacca ccgggaggcc caatgtttct ctgtcgtcct tccacatcaa gaacagcgtg gccctggcct ccatccagct gccccagct ctattctcat cccttccggc tgccctggct ccccggtgc cccagactg caccctgcaa ctgctcgtct tccgaaatgg ccgctcttc cagagccaca gcaacacctc ccgccccgga gctgctgggc ctggcaagag gcgtggcgtg gccaccccc gctgtctgc aggaaccagt ggctgtggcg tgggaaacct gacagagcca gtggcgctt cgtgctgga ctgggctgag ggagccgaac ctgtggccgc ttggtggagc caggaggggc ccggggaggc tgggggctgg accctggagg gctgccagct ccgctccagc cagccaatg tcagcgccct gactgccag cacttgggca atgtggccgt gctcatggag ctgagcctt tccccagga ggtggggggc gccggggcag ggctgacccc cgtggtatac ccttgacgg ccttgcgtc gctctgctc ttcgccacca tcatcaccta catcctaac cacagctcca tccgtgtgtc ccggaaggc tggcacatgc tgctgaactt gtgcttccac atagccatga cctctgctg ctttggggg ggcatcacac tcaccaacta ccagatggtc tgccaggcgg tgggcatcac cctgcactac tctccctat	Homo sapiens
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Homo
sapiens

P

BAA96055.1

G Protein-
Coupled
Receptor
Ls21632

21632

408

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Homo
sapiens

A

NM_020400

G Protein-
Coupled
Receptor
GPR92/GPR93

22315

409

410 22315 G Protein- NP_065133.1 Homo sapiens
 Coupled
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 GPR92/GPR93

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411 22925 Latrophilin- NM_015236 Homo sapiens
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413	25359	G Protein- Coupled Receptor GPR34	NM_005300	<p>YECVPYKVEQ KVFELCPGLLK GYQSEHLFE SDHQSGAWCK DPLQASDKIY YMPWTPYRTD TLTEYSSKDD FIAGRPTTTY KLPHRVDGTG FVYDGALEFF NKERTNIVK FDLRTRIKSG EAIIANANYH DTSPIYRWGGK SDIDLAVDEN GLWVIYATEQ NGKIVISQL NPYTLRIEGT WDTAYDKRSA SNAEMICGIL YVVKSVYEDD DNEATYQSKD SLVDVPPFNS YQYIAADVYN PRDNLVYWN NYHVVKYSLD FGPLDSRSQ AHGQVSYIS PPIHLDSELE RPSVKDISTT GPLGMGSTTT STTLRTTTLS PGRSTTSPVS GRNRSTSTP SPAVEVLDDM TTHLPSASSQ IPALEESCEA VEAREIMWFK TRQGQIAKQP CPAGTIGVST YLCLAPDGIW DPQGPDLNSC SSPWVNHITQ KLSGETAAN IARELAEQTR NHLNAGDITY SVRAMDQLVG LLDVQLRNLT PGGKDSAAARS INKLQKRERS CRAYVOAMVE TVNNLLQPOA LNAWRDLTTS DQLRAATMLL HTVEESAFVL ADNLKTDIV RENTDNIKLE VARLSTEGNL EDLKFPENMG HGSTIQLSAN TLKQNGRNGE IRVAFVLYNN LGPYLSTENA SMKLGTEALS TNHSHVIVNSP VITAAINKEF SNKVYLADPV VFTVKHIKQS EENFNPCSF WSYSKRMTGTG YWSTQGCRL TTNKTHTTCS CNHLTNFAVL MAHVEVKHSD AVHDLLEDVI TWVGILLSLV CLLICITFFC FFRGLQSDRN TIHKNLCISL FVAELLEFLIG INRTDQPIAC AVFAALLHFF FLAAFTWMFL EGVQLYIMLV EVFESEHSRR KYFYLVGYGM PALIVAVSAA VDYSYGTDK VCWLRLDTYF IWSFIGPATL IIMLVIFLG IALYKMFHT AILKPESGCL DNINYEDNRP FIKSWVIGAI ALLCLLGLTW AFLMYINES TVIMAYLFTI FNSLQGMFIF IFHCVLQKKV RKEYGKCLRT HCCSGKSTES SIGSGKTS GS RTPGRYSTGS QSRIRRMWND TVRKQSESSF ITGDINSSAS LNREPYRETS MGKLNIAVQ IGASEQCQGY KCHGYSTTEW</p> <p>atgagaagtc ataccataac aatgacgaca acttcagtcg gacgctggcc ttactcctcc A cacagaatgc gctttataac caatcatagc gaccaaccgc cacaaaactt ctcagcaaca ccaaatgtta ctacctgtcc catggatgaa aaattgctat ctactgtgtt aaccacatcc tactctgtta ttttcatcgt gggactgggtt gggaacataa tcgcccctcta tgtatttctg ggtattcacc gtaaaagaaa ttccattcaa attattctac ttaacgtagc cattgacagc ctctactca tcttctgctt cctttccga ataattgtat atattaacca aaacaagtgg acactagggtg tgattctgtg caagggtgtg ggaacactgt tttatatgaa catgtacatt agcattattt tgcttggtt catcagtttg gatcgctata taaaaattaa tcggtctata cagcaacgga aggcaataac aaccaaaaca agtatttat tctgttgtat agtatggatg cttgctcttg gtggattcct aactatgatt attttaacac ttaagaaagg aggcataat tcacaaatgt gtttccatta cagagataag cataacgcaa aaggagaagc catttttaac ttcattcttg tggtaattgt ctggctaatt ttcttactaa taatcccttc atataatag attgggaaga atctattgag gatttctaaa aggaggtcaa aatttcctaa ttcctggttaa tatgccacta cagctcgtaa ctctttatt gtacttatca tttttactat atgttttgtt ccctatcatg cctttcgatt catctacatt tcttcacagc taaatgtatc atcttgctac tggaagaaga ttgttcacaa aaccaatgag atcatgctgg ttcctcatc tttcaatagt tgcttagatc cagtcattga tttcctgatg tccagtaaca ttcgcaaaa aatgtgcaa cttcttttta gacgatttca aggtgaacca agtaggagtg aaagcacttc agaatttaa ccaggatact ccctgcatga tacatctgtg gcagtgaaaa tacagtctag ttctaaaagt acttga</p>	Homo sapiens
414	25359	G Protein- Coupled	NP_005291.1	<p>MRSHTITMTT TSVSSWPYSS HRMRFTNHS DQPPQNFSA PNVVTCPMDE KLLSTVLTTTS P YSVIFIVGLV GNIIALYVFL GIHRKRNSIQ IYLLNVAIAD LLLIFCLPFR IMYHINQNKW</p>	Homo sapiens

Receptor
GPR34

415 30698 G Protein-
Coupled

Receptor
Ls30698

Homo
sapiens

TLGVILCKV GTLFYNNMYI SIILGFISL DRYIKINRSI QQRKAITTKQ SIYVCCIVWM
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416	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	<p>ccctggccag ctggggggctg tagggccctg ctgggcttg tggtctttca ctctgaggc</p> <p>ctgctctgtg gctccatagc tcagtcctcc atcactctgc gtggatcctg ggtactttgg</p> <p>acagtggagg ttgatccaa ttttaggggt aggggtgggg gtgggagtg ggtggtgggt</p> <p>tggcaggagg aagaatgagt ctactttgga gacaattaa gtatgggtacg tttcctaag</p> <p>atagggaacg gaagaaaagc aagagaactg ttaataatgc tgattatttt agtctatttt</p> <p>agaccttgag taaactaatt tagcttctag gatccaagt tccttatttg tgaacacagga</p> <p>aaaaaaaatt cttgtaggta ttactgtttg tgtgtttgag ttactgcac atgtttgtgt</p> <p>ttgtgtatat gtgtctttta aaaatactat atataaagaa gattctgggt gttatttttag</p> <p>acataaacga atatatgtac cttcac</p> <p>MMKSOATMI CCLVFLSTE CSHYRSKIHL KSYSEVANHI LDTAASINWA FIPKNASSD P</p> <p>LLQSVNLFAR QLHIHNSEN IVNELFIQTK GFHINHNTSE KSLNFMSMN NTEDILGMV</p> <p>QIPRQELRKL WPNASQAISI AFPTLGAILR EAHQLQNSLP RQVNGLVLSV VLPRLQEI</p> <p>LTFEKINKTR NARAQCVGWH SKRRWDEKA COMLDIRNE VKRCNYTSV VMSFSILMS</p> <p>KSMTDKVLDY ITCIGLSVSI LSLVLCIIIE ATVWSRVVVT EISYMRHVC IUNIIVSLTA</p> <p>NWFIIGSHF NIKAQDYNMC VAVTFESHFF YLSLFFWMLF KALLIYGIL VIFRRMKSR</p> <p>MMVIGFAIGY GCPLIIAVTT VAITEPENGY MRPEACWLAW DNTKALLAFA IPAFVIVAVN</p> <p>LIVLVAVN TQRPISGSK SQDWIIMRI SKNVAILTPL LGLTWGFGIA TLIETSLTF</p> <p>HIIFALLNAF QGFFILLFGT IMDHKIRDAL RMRMSSLKKG SRAENASLG PTNGSKLMNR</p>	Homo sapiens
417	30875	G Protein-Coupled Receptor GPR87/GPR95	NM_023915	<p>QG</p> <p>ggcacgaggg tttcgttttc atgctttacc agaaaaatcca cttccctgcc gacctagtt A</p> <p>tcaaaagctta ttcttaatta gagacaagaa acctgtttca acttgaagac accgtatgag</p> <p>gtgaatggac agccagccac cacaatgaaa gaaatcaaac caggataaac ctatgctgaa</p> <p>cccacgcctc aatcgtcccc aagtgtttcc tgacacgcac ctttgcctac agtgcacac</p> <p>aactgaagaa tgggggttcaa cttgacgctt gcaaaattac caataaacga gctgcacggc</p> <p>caagagagtc acaattcagg caacaggagc gacggggccag gaaagaacac cacccttcac</p> <p>aatgaatttg acacaattgt cttgcccgtt ctttatctca ttatatattgt ggcaagcatc</p> <p>ttgctgaatg gtttagcagt gtgacatctc ttccacatta ggaataaaac cagcttcata</p> <p>ttctatctca aaaacatagt ggttcagac ctcataatga cgtgacatt tccatttcga</p> <p>atagtcctatg atgcaggatt tggaccttgg tacttcaagt ttattctctg cagataacac</p> <p>tcagttttgt tttatgcaaa catgtatact tccatcgtgt tccctgggct gataagcatt</p> <p>gacgctatc tgaagggtgt caagccattt ggggactctc ggatgtacag cataaccttc</p> <p>acgaaggttt tatctgtttg tgtttgggtg atcatggctg ttttgtctt gccaaacatc</p> <p>atcctgacaa atggtcagcc aacagaggac aatatccatg actgctcaa acttaaaagt</p> <p>cctttggggg tcaaatggca tacggcagtc acctatgtga acagtctgt ttttgtggcc</p> <p>gtgctggtga ttctgatcgg atgttacata gccatatcca ggtacatcca caaatccagc</p> <p>aggcaattca taagtcatc agccgaaaag tatcacttgt gcagaattcc tttactttt</p> <p>gtggtgtgt tttttacctg ctttctacca tatcacttgt gcagaattcc tttactttt</p> <p>agtcaacttag acaggctttt agatgaatct gcacaaaaaa tctatatta ctgcaaaagaa</p> <p>attacacttt tcttgtctgc gtgtaattgt tgcctggatc caataattta ctttttcattg</p> <p>tgtagggtcat tttcaagaag gctgttcaaa aaatcaata tcagaaccag gagtgaagc</p> <p>atcagatcac tgcaaaagtgt gagaagatcg gaagtctgca tatattatga ttacactgat</p>	Homo sapiens

418	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	gtgtaggcct tttattgttt gttggaatcg atatgtacaa agtgtaaata aatgtttctt ttcattatcc ttaaaaaaaa aa GLAVWIFFHI RNKTSFIYFL KNSIVVADLIM TLTFPFRIVH DAGFGPWYEF FILCRYTSVL FYANMYTSIV FLGLISIDRY LKVKPFGDS RMYISITFTKV LSVCVWVIMA VLSLPNIILT NGOPTEDNIH DCSKLKSPLG VKWHTAVTYV NSCLFVAVLV ILIGCYAIS RYIHKSSRQF ISQSSRRKRKH NQSIIRVVAV FFTCFIPYHL CRIPFTFSLH DRLLDESAQK ILYYCKEITL FLSACNVCLD PIIFYFMCRS FSRRLFKKSN IRTRESIRS LQSVRRSEVR IYYDYTDV ggccttatct ttccagtcgt ccagcatgct ctgcccaccc cagcccgagg tgcactgacc A atgagcctca actcctccct cagctgcagg aaggagctga gtaatctcac tgaggaggag ggtggcgaag ggggcgtcat catcacccag ttcattgcct caccattttt gtctgcctgg gaaacctggt cactgtggtc acctgtaca agaagtccta cctcctcacc ctcagcaaca agttcgtctt cagcctgact ctgtccaaact tctgtgtgtc cgtgttggtg ctgccttttg tggtagcagg cctcatccgc agggaaatgga tctttggtgt agtgtgggtg aaattctctg cctcctcta cctgctgact agctctgcca gcatgctaac cctcggggtc attgccatcg accgtacta tgcgtgctcg taccctatgg tgaaccccat gaagatcaca gggaaccggg ctgtgatggc actgtgtctac atctggcttc actcgtctat cggctgcctg ccacctgt tgggtggtc atcctggag tttgacagat tcaaatggat gttgtgtggct gcttggcacc gggagcctgg ctacacggcc tctgggcaga tctgtgtgac cctcttcccc ttcttggtca tgcgtgtgtg ctatggcttc atcttccgcg tggccagggt caaggcacgc aaggtgcact gtggcacagt cgtcatcgtg gaggaggatg ctacagaggac cgggaggaaag aactccagca cctccacctc ctcttcaggc agcaggaggga atgcctttca ggtgtgtggtc tactegcca accagtcaa agccctcacc accatcctgg tggctcctcg tgccttcctg gtcacctggg gccctacat ggttgtctac gccctctgagg cctctgggg gaaagctcc gtctccccga gctggagac tggggccaca tggctgtcct tctccagcgc tgtctgccac ccctgatct atggactctg gaacaagaca gttcgcgaaag aactactggg catgtgcttt ggggaccggt attatcgga accatttgtg caacgacaga ggacttccag gctcttcagc atttccaaca ggatcacaga cctgggacctg tccccacacc tcaactgcgt catggcagggt ggacagcccc tggggcacag cagcagcacg ggggacactg gcttcagctg ctccagggac tcaggtaacc tgcgtgcttt ataaacctct cacctgtcgc gtttccctg tgttgcgttt ccccctgctc gcgtttcccc tgtgcaggct caagagctgg cggaggggca tttccacgg tg	Homo sapiens
419	31568	G Protein-Coupled Receptor RE2	NM_007369	gtgtaggcct tttattgttt gttggaatcg atatgtacaa agtgtaaata aatgtttctt ttcattatcc ttaaaaaaaa aa GLAVWIFFHI RNKTSFIYFL KNSIVVADLIM TLTFPFRIVH DAGFGPWYEF FILCRYTSVL FYANMYTSIV FLGLISIDRY LKVKPFGDS RMYISITFTKV LSVCVWVIMA VLSLPNIILT NGOPTEDNIH DCSKLKSPLG VKWHTAVTYV NSCLFVAVLV ILIGCYAIS RYIHKSSRQF ISQSSRRKRKH NQSIIRVVAV FFTCFIPYHL CRIPFTFSLH DRLLDESAQK ILYYCKEITL FLSACNVCLD PIIFYFMCRS FSRRLFKKSN IRTRESIRS LQSVRRSEVR IYYDYTDV ggccttatct ttccagtcgt ccagcatgct ctgcccaccc cagcccgagg tgcactgacc A atgagcctca actcctccct cagctgcagg aaggagctga gtaatctcac tgaggaggag ggtggcgaag ggggcgtcat catcacccag ttcattgcct caccattttt gtctgcctgg gaaacctggt cactgtggtc acctgtaca agaagtccta cctcctcacc ctcagcaaca agttcgtctt cagcctgact ctgtccaaact tctgtgtgtc cgtgttggtg ctgccttttg tggtagcagg cctcatccgc agggaaatgga tctttggtgt agtgtgggtg aaattctctg cctcctcta cctgctgact agctctgcca gcatgctaac cctcggggtc attgccatcg accgtacta tgcgtgctcg taccctatgg tgaaccccat gaagatcaca gggaaccggg ctgtgatggc actgtgtctac atctggcttc actcgtctat cggctgcctg ccacctgt tgggtggtc atcctggag tttgacagat tcaaatggat gttgtgtggct gcttggcacc gggagcctgg ctacacggcc tctgggcaga tctgtgtgac cctcttcccc ttcttggtca tgcgtgtgtg ctatggcttc atcttccgcg tggccagggt caaggcacgc aaggtgcact gtggcacagt cgtcatcgtg gaggaggatg ctacagaggac cgggaggaaag aactccagca cctccacctc ctcttcaggc agcaggaggga atgcctttca ggtgtgtggtc tactegcca accagtcaa agccctcacc accatcctgg tggctcctcg tgccttcctg gtcacctggg gccctacat ggttgtctac gccctctgagg cctctgggg gaaagctcc gtctccccga gctggagac tggggccaca tggctgtcct tctccagcgc tgtctgccac ccctgatct atggactctg gaacaagaca gttcgcgaaag aactactggg catgtgcttt ggggaccggt attatcgga accatttgtg caacgacaga ggacttccag gctcttcagc atttccaaca ggatcacaga cctgggacctg tccccacacc tcaactgcgt catggcagggt ggacagcccc tggggcacag cagcagcacg ggggacactg gcttcagctg ctccagggac tcaggtaacc tgcgtgcttt ataaacctct cacctgtcgc gtttccctg tgttgcgttt ccccctgctc gcgtttcccc tgtgcaggct caagagctgg cggaggggca tttccacgg tg	Homo sapiens
420	31568	G Protein-Coupled Receptor RE2	NP_031395.1	mslnsslsr KELSNTLEE GEGGVIIIT FIAIIVITIF VCLGNLVIV TLYKSYLLT P LSNKVFSLT LSNFLLSVLV LPFVVTSSIR REWIFGVVWC NFSALLYLLI SSASMLTLGV IAIDRYAVL YPMVYPMKIT GNRVAMALVY IWLHSLIGCL PPLFGWSSVE DFEFKWMCVA AWHREPGYTA FWQIWALFIP FLVMLVCYGF IFRVARLVKAR KPHCGTVIV EEDAQRTRK NSSTSTSSG SRNFAQGW YSANQCKALI TILVVLGAFM VTWGPYMWI ASEALWGKSS VSPSLETWAT WLSFASAVCH PLIYGLWNKT VRKELGMCF GDRYREPFV QRQRTSRLFS ISNRITDLGL SPHLTALMAG GQPLGHSSST GDTGFSCSQD SGNLRL atggacacct cccggctcgg tgtgtcctg tcttgcctg tctgtctgca gctggcgacc A gggggcagct ctcccaggtc tgggtgtgtg ctgagggggct gccccacaca ctgtcattgc	Homo sapiens
421	36534	G Protein-Coupled	NM_003667		Homo sapiens

Receptor
GPR49

gagcccgacg gcaggatggt gctcagggtg gactgctccg acctgggggt ctoggagctg
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attaagtta tcttctgtgt ggtagtccca ctctctgcat gtctcaatcc ccttctctac
atcttgttca atctcactt taaggagat ctggtgagcc tgagaaagca aacctacgtc
tgacaagat caaacaccc aagcttgatg tcaattaaact ctgatgatgt cgaaaaacag

422	36534	G Protein- Coupled Receptor GPR49	NP_003658.1	<p>tctgtgact caactcaagc cttgtaacc ttaccagct ccagcatcac ttatgacctg cctcccagtt ccgtgccatc accagcttat ccagtgactg agagctgcca tctttcctct gtggcatttg tcccatgtct ctaa</p> <p>PSNLSVFTSY LDLSMNNISQ LSLVLLQLAT GGSSPRSGVL LRGCPTHCHC EPDGRMLLRV DCSDLGLSEL P LQNNQLRHVP TEALQNLRSI QSLRLDANHI SYVPPSCFSG LHSRLHMLD DNALTEIPVQ AFRSLALQA MTLALNKIHH IPDYAFGNLS SILVHLHNN RIHSLGKKCF DGLHSLETLD LNNYLDEFP TAIRTLNLK ELGFHSNNIR SIPEKAFVGN PSLLTIHFYD NPIQFVGRSA FQHLPELRTL TLNGASQITE FPDLTGTANL ESLLTGAQI SSLPQTVCNQ LPNLQVLDSL YNLLEDLPF SVCKLQKID LRHNEIYEIK VDTFQQLLSL RSLNLAWNKI AIHPNAFST LPSLIKDLIS SNLLSEFPII GLHGLTHLKL TGNHALQSLI SENFPELKV IEMPYAYQCC AFGVCENAYK ISNQWNKGDN SSMDDLHKD AGMFOAQDER DLEDFLLDFE EDLKAHLSVQ CSPSPGFPKP CEHLLDGWL I RIGVWTIAVL ALTCNALVTS TVFRSPLYIS PIKLLIGVIA AVNMLTGVS AVLAGVDAFT FGSFARHGAW WENGVGCHVI GFLSIFASES SVFLLTLAAL ERGSVKYSA KFETKAPFS LKVIILCAL LALTMAAVPL LGGSKYGASP LCLPLPFGEF STMGMVALI LLNSLCFLMM TIATKLYCN LDKGDLENIW DCSMKHIAL LFTNCILNC PVAFLSFSSL INLTFSISPEV IKFILLVVVP LPACLNPLLY ILFNPHEKED LVSLRKQTYV WTRSKHPSLM SINSDDVEKQ SCDSTQALVT FTSSSITYDL PPSSVPSPAY PVTESCHLSS VAFVPCL</p>	Homo sapiens
423	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NM_004736	<p>actcagagatg gcggcggggc tgctctgaag agacctcggc ggcgcgaggag gagagagagaa A gcgcagcgcc gcgcgcgcgc ggggcccatg tggggaggag tcggagtcgc tgttgccgcc gcgcctgta gcctctggac ccagctggga gtgaggggga aacggcagga tgaagtctgc cgagcacctc tcgcgcgaca tcactccgca gtggaggaga caatacatcc agtatgaggc tttcaaggat atgctgtatt cagctcagga ccaggcacct tctgtggaag ttacagatga ggacacagta aagaggtatt ttgccaaagt tgaagagaaag tttttccaaa cctgtgaaaa agaactggcc aaatcaaca cattttattc agagaagctc gcagaggctc agcgagggtt tgctacactt cagaatgagc ttcagtcac actggatgca cagaaagaaa gcactgggtg tactacgtg cgacaacgca gaaagccagt ctccacttg tcccatgagg aacgtgtcca acatagaaat attaaagacc ttaaaactggc cttcagtgag ttctacctca gtctaactct gctgcagaac taccagaatc tgaattttac agggtttcga aaaatcctga aaagcatga caagatcctg gaaacatctc gtggagcaga ttggcgagtg gctcacgtag aggtggcccc atthttatac tgcaagaaaa tcaaccagct tatctctgaa actgaggctg tagtgaccaa tgaacttgaa gatggtgaca gacaaaaggc tatgaagcgt ttacgtgtcc cccctttggg agctgctcag cctgcaccag catggactac ttttagagtt ggctattttt gtggaatatt cattgtactg aatattaccc ttgtgcttgc cgctgtattt aaacttgaaa cagatagaag tatatggccc ttgataagaa tctatcgggg ttgctttctt ctgattgaat tcccttttct actgggcatc aacacgtatg gtggagagaa ggctggagta aacctgtac tcatcttga acttaatcgg agaagcaatt tgtctcatca acatctcttt gagattgctg gattcctcgg gatattgtgg tgcctgagcc tcttggaatg cttctttgct ccaattagtg tcatccccc atatgtgat ccacttgccc tttatggatt tatggttttc ttccttatca accccaccaa aactttctac tataaatccc ggtttttgct gcttaaaactg ctgtttcagc tatttacagc</p>	Homo sapiens

424	37498	Xenotropic and Polytropic Retrovirus Receptor (XPRI)	NP_004727.1	<p>ccccctccat aaggtaggct ttgctgattt ctggttgccg gatcagctga acagcctgtc agtatactg atggacctgg aatataatgat ctgcttttac agtttgaggc tcaaatggga tgaagtaag ggcctgttgc caaataatc agaagaatca ggaatttgcc caaataatc atatggtgtg cgggccattg ttcatgtcat tctcattta gttaatgctg gcaagtactc gcgccgatat cgagacacaa aaaggccctt tctcattta actcacaaag aacgaggta cacaactttc ttcatggtgg cgtttgcagc cctttacagc gattgtctt tatatcatca gttcctgtca ctcggaact atggtgttct ttacactgtg agatggactg ggtctcttc gataagaatg ctggagagaa tacctcatc tgggatctca agatggactg ggtctcttc gataagaatg ctggagagaa cactttctc cggaagaga ttgtataccc caaaaagcc tactactact gtgccataat agagatgtg attctgcct ttgcttgac tcatctgac tgctttgccc cacttgagg ttttcggcg gttgccctcat tctggggaca tcatctgac tgctttgccc cacttgagg ttttcggcg atttgtgtg aactcttcc gctggagaa tgaacatctg aataactgtg gtgaattccg tgctgtcgg gacatctctg tggcccccct gaacagatg gatcagactc tctagaaca gatgatggac caggtgatg ggtacgaaa cgccgaag aatcggtcat ggaagtacaa ccagagcata tccctgcct ggcctgcct cgcttctcaa tccaaggctc gtgacactaa ggtattgata gaagacacag atgatgaagc taacacttga attttctgaa gtctagctta acatcttttg ttttctact ctacaatcct ttctcgcac aacgaaacct ctagtacct tccagccgaa aacaggagaa aacacataac acatttccg agctcttccg gatcggatcc tatggactcc aaacaagctc actgtgtttc ttttctttc ttctggttta attttaatt tctattttca aaacaagtat ttacttcatt tgccaatcag aggatgtttt aagaaacaaa acatagtatc ttatggattg ttacacatca caaggacata gatacctatc aggatgaaga acaggcattg caaggacct ctgatggagc ggtactgaga tatctcggct tccgctcagc ccggttttga atggtgaaa ccgacattg gtttttaaat ttttctcag tttatgtgga gaattttttt ctctcttca taccagcgc aaaggcactg gccgacttg caggaaaagt gcaacttaaa gcagtacctt cattcatgaa gctactttt aatttgatgt aacttttctt atattgggaa ggttgctg gtgggtggga aatatgatgt atttggta catagttttc tcattattta tgaactta ccatcacgaa tgatataact cctgtgcaat gaagtgata acagtaaaag aaggcaggag aaaaaaaaaa</p> <p>SAQDQAPSVE VTDEDTVCRY FAKFEKFFQ P LQSSLDAQKE STGVTLRQR RKPVFHLSHE INFTGFRKIL KKHDKILETS RGADWRVAHV RQKAMKRLRV PPLGAAQAP AWTFERVGLF IYRGFLLIE FLFLGINTY GWRQAGVNHV LLACFFAPIS VIPTYVYPLA LYGFVFFLI FADFELADQL NSLSVILMDL EYMICFYSLE VQCIPAWLRF IQCLRRYRDT KRAPPHLVNA FYLWIVFYII SSCYTLIWDL KMDWGLFDKN FAWTIQISIT STTLLPHSGD IATVFEAPLE VAPLNADDQT LLEQMDQDD GVRNRQKNRS DDEANT</p>	Homo sapiens
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425	40881	Lung Seven Transmembran e Receptor 2 (L1USTR2)	AX073578	agagatggca gtgagcgaga ggagggggct cggccgcggg agccccggg agtgggggca A gcggctactt ctggtgctgc tgttgggtgg ctgctccggg cgcattccacc ggctggcgctt gacgggggag aagcgagcgg acatccagct gaacagcttc ggtttctaca ccaatggctc tctggaggtg gattgagcg tccctgcggct gggcctccgg gaggcagaag agaagtccct gctgggtggg ttcagtctca gccgggttcg gctcggcaga gttcgctcct attcaacccg ggatttccag gactgccctc tccagaaaa cagtagcagt ttcctggctc tgttccctat caacaccaa gactcgcagg tccaggtcgg gaagtatgga gacgagaaga cgttgtttat ctttcccggt ctcctcccg aagcaccctc caaacccagg cccccgaag cacaggccac agtccccgc aaggtggatg gcggaggagc ctctgcagcc agcaagccca agtcaacacc cgcagtgatt cagggtccta gtgggaagga caaggaacctg gtgttgggct tgagccacct caacaactcc tacaacttca gtttccagct ggtgatcggc tctcaggcg aagaaggcca gtacagcctg aacttccaca actgcaacaa ttcagtgcga ggaaggagc atccattcga catcacgggt atgattccgg agaagaacct cgtcggcttc ctgtcggcag cggagatgcc ccttttcaag ctctacatgg tcatgtccg ctgtcttctg gccgtggca tcttctgggt gtccatcctc tgcaggaaca cgtacagcgt cttcaagatc cactggctca tggcgggcctt ggccttcacc aagagcatct ctctcctctt ccacagcatc aactactact tcatcaacag ccaggggcac cccatcgaa gcttgcctg catgtactac atcgacacc tgcagaaggg cgcctctctc ttcatacca tgcctctgat tggctcaggc tgggcttca tcaagtacgt cctgtcggat aaggagaaga aggtctttgg gatcgtgat cccatgcagg tccctggcaca cgtggcctac atcatcatc agtcccgga agtcccgga ggaaggcgc agcactacg tgcgtggaa ggagattttg ttcctgggtg acctcatctg ctgtgtgtgc atcctgttc ccgtagtctg gtccatccgg catctccagg atgcgtctg cagagacggg aaggtggcag tgaacctggc caagctgaag ctgttccggc attactatgt catggtctat tgcactgctc acttaccgg catcatcgcc atcctgctg agtggctgt gcccttctag tggcagtggc tgtaccagct cttggtggag ggctccacc tggccttctt cgtgctcacg ggtacaagt tccagccac agggacaac ccgtacctgc agctgcccc agaggaacag gaggatgtt agatggagca agtaatgacg gactctgggt tccgggaagg cctctccaaa gtcaacaaa cagccagcgg gcgggaactg ttatgatcac ctccacatct cagaccaaag ggtcgtcctc cccagcatt tctcactcct gcccttctc cacagcgtat gtggggagggt ggaagggggtc catgtggacc aggcggccag ctccccgga ccccggttc cggacaagcc catttgaag aagagtccct tccctccccc aaatattggg cagccctgtc ctatcccggt gaccacccct cccctccagc tatgtgtaca ataagacca atctgtttg ct	Homo sapiens
426	40881	Lung Seven Transmembran e Receptor 2 (L1USTR2)	CAC28410.1	MAVSERRLG RGSPAENGQR LLLVLLGGC SGRIHRLALT GEKRADIQLN SFGFYTNGL P EVLSVRLG LREAEEKSL VGFSLSRVS GRVRSYSTRD FQDCPLQNS SSFLVFLIN TKDLQVVRK YGEQKTLFIF PGLLPEAPSK PGLPKPQATV PRKVDGGTS AASKPKSTPA VIQGPSGKDK DLVLGLSHLN NSYNFSFHV IGSQAEFGY SLNFHNCNS VPSKEHPFDI TVMIREKNPD GFLSAAEMPL FKLYMVSAC FLAAGIFWVS ILCRNTYSVF KIHLMALA FTKSISLLEH SINYFINSQ GHPIEGLVM YYIAHLKGA LLFITIALIG SGWAFIKYVL SDKEKVFGEI VIPMQVLAV AYIIIESREE GASDYVLWKE ILFLVDLIC GAILFPVWVS IRHLQDASGT DGKVAVNLAK LKLFRRHYVM VICVYFTRI IAILQVAVP FQWQLYQLL VEGSTLAFEV LTGYKEQPTG NNPLYQLPQE DEEDVQMEQV MTDGREGI SKVNKTASGR	Homo sapiens

427	42697	G Protein- Coupled Receptor GPR64	NM_005756	ELL	Homo sapiens
				agccagcccg aggaacgcgag cggcagggtgt gcacagaggt totccacttt gttttctgaa A	
				ctcgcggtca ggaatggtttt ctctgtcagg cagtgtggcc atgttggcag aactgaaagaa	
				gttttactga cgttcaagat attcctgtc atcattgtc ttcatgtcgt ttctgttaaca	
				tccttggaag aagatactga taattccagt ttgtccacac cactgtgctaa attatctgtt	
				gtcagttttg cccctctctc caatgaggtt gaaacacaa gcctcaatga ttttacttta	
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				gcttcaggcg tcaaacccca gagaaatatt tgcaatttgt catctatttg caatgactca	
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				gagctcaaca aaacctgca aacctaaagt gagacttact ttataatgtg tgctacagca	
				gaggcccaaa gcacattaaa ttgtacattc acaataaaac tgaataatac aatgaatgca	
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ttcactggaa aacagcacat gtttaacgag aaggaagatt cctgcaatgg gaaaggccgt
atggctctca gaaggacttc aaagcgggga agcttacact ttattgagca aatgtgattc
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ctgactgtgc ttgtcaatat ttcttttctg atttatttaa ttttcttga tttatattt
aaaaatcaaaa atgttaaaa caatgaata aatttgcagt taaga
NP_005747.1 MVFSVRQCGH VGRTEVLLT FKIFLVIICL HVVLVTSLEE DTDNSSLSP PAKLSVVSFA P
PSSNEVETTS INDVTLSLLP SNETEKTKIT IVKTFNAGSV KPQNICNLS SICNDSAFFR

Homo sapiens

NP_005747.1

G Protein-Coupled

42697

428

Receptor
GPR64

429	45937	KIAA1624	AF376725	<p>GEIMFOYDKE STVPQNHIT NGTLTGVLSL SELKRSELNK TLQTLSETYF IMCATAEAQS TLNCTFTIKL NNTMNACAAI AALERVKIRP MEHCCSVRI PCPSSPEELG KLQDLQDPI VCLADHPRGP PFSSQSIPV VPRATVLSQV PKATSFAPRP DYSPTVHNP SPIGEIQPLS PQPSAPIASS PAIDMPQSE TISSPMQTH VSGTPPVKA SFSPVTVSAP ANVNTTSAPP VQTDIVNTSS ISDLENQVLQ MEKALSGLSL EPNLAGEMIN QVSRLLHSP DMLAPLAQRL LKVDDIGLQ LNFNTTISL TSPSLALAVI RVNASSENTT TFVAQDPANL QVSLETOAPE NSIGTITLPS SLMNLPAMD MELASRVQFN FFETPALFQD PSLENLSLIS YVISSVANL TVRNLTNRVT VTLKHINPSQ DELTVRCVFW DLGRNGRGG WSDNGCSVKD RRLNETICTC SHLTSFGLL DLSRTSVLPA QMMALTFITY ICGGLSSIFL SVTLVTYIAF EKIRRDYPSK ILIQLCAALL LNLVFLDS WIALYKMOGL CISVAVFLHY FLLVSTWVG LEAFHMYLAL VKVENTYIRK YILKFCIVGW GVPAAVVTII LTISPDPNYGL GSYGKFPNGS PDDFCWINNN AVFYITWGY FCVIFLLNVS MFIWLVQLC RIKKKQLGA QRKTSIQDLR SIAGLTFLLG ITWGEAFFAW GPNVTFMYL FAIFNTLQGF FIFIFYCVAK ENVRKQWRRY LCCGKLRLAE NSDWSKTATN GLKKQTVNQG VSSSNSLSQS SSNSTNSTTL LVNDCSVHA SGNNGASTER NGVSFSVQNG DVCLHDTGK QHMFENEKEDS CNGKGRMALR RTSKRGSLHF IEQM</p>	Homo sapiens
429	45937	KIAA1624	AF376725	<p>gaacaaacat ggcgcgtctg gcgcccgtcg gctccccgc ctcgcgcgtt cctaggctgg A ccgcgggcct ccgcgtgctc ccaatgctgg gtttgcgtga gttgctggcc gagcctggcc tgggcgcgct ccatacctcg gcactcaagg atgatgtgag gcataaagtt catctgaaca cctttggcct cttcaaggat gggtaacatgg tggtaaatgt cagtagcctc tcactgaatg agcctgaaga caaggatgtg actattggat tttagcctaga ccgtacaaag aatgatggct ttcttcttta cctggatgaa gatgtgaatt actgtatttt aaagaaacag tctgtctctg tcaccccttt aatcctagac atctccagaa gtgaggtaag agtaaatgtt ccaccagaag ctggtaccca gttaccaaag atcatcttca gcagggatga gaaagtctt ggtcagagcc aggagcctaa tgttaacctt gcttcagcag gcaaccagac ccagaagaca caagatgggtg gaaagtctaa aagaagtaca ttggaattcaa aggccatggg agagaaatcc ttttctgttc ataataatgg tggggcagtg tcatttcagt ttttctttaa catcagcact gatgaccaag aaggccttta cagtccttat tttcataaat gccttggaaa agaattgcca agtgacaaagt ttacattcag ccttgatatt gagatcacag agaagaatcc tgacagctac ctctcagcag gagaaattcc tctcccaaa ttatacatct caatggcctt ttttctctt ctttctggga ccatactggat tcatactctt cgaataacgac ggaatgatgt atttaaaatc cactggctga tggcgccctt tcttttcacc aagtcctctt ccttggtgtt ccatgcaatt gactaccact acatctctc ccagggcttc cctatcgag gctgggctgt tgtgtactac ataactcacc ttttgaagg ggcgctactc ttcatcaca ttgactcat ttggactggc tgggctttca ttaagcacat cctttctgtat aaagacaaaa agatcttcac gattgtcatt ccactccagg tcttggaaca ttttgctctc atcatcatag agtccacga ggagggcagc actgaatatg gcttgggaaa ggaactctta tttctggtcg acctgtgtg ttgtgggtgc atctcttcc cagtggtgtg gtcaatcaga catttacaag aagcatcagc aacagatgga aaagtgtcta ttaacttagc aaagctgaaa cttttcagac attatacgt cttgattgtg tgttacatat acttcactag gatcattgca tttctcctca aactcgtgtg tccattccag tggaaagtggc tctaccagct cctggatgaa acggccacac tggctctctt tgttctaag ggtataaat tccgtccggc ttcagataac ccctacctac aacttctca ggaagaaga gacttggaaa</p>	Homo sapiens

310/448

430	45937	KIAA1624	AAK57695	Protein	<p> tggagtcctg tctgacaaca tctggggtga tggaaagtat gaagaagtc aagaagggtga ccaacggctc cgtggagccc cagggcgagt gggaaggcgc cgtgtgacag agccgaccct gagatggca ctgtccaag aaactgttaa cttattcata gtcctattgg acagcaggag cagtcctac agtgaactat tggcaccacc gacagtga caagggcaca tggctggagc acagtccgc ggaacactga tttgtactc tctttatg aaacgatctg tggctgtta gaggcagctg gactccttt cagggcgga tggagggcg ggcacagggg ggaaggagag aagagaaaaa gaagaattca tttttaattt aggtttcttt ttttctctt catttcggag ctctaagggt tatgcagttg tgaccccatg tgtggggaag ttagcaagg acggctgggtg gagggggaag gaggtgcga ggtgtctgtc tgatgcttta gaaatgtct actgaggacc ctgggactta agaagaagg cggggagagt gccattgcct gttgggaga caaaaatgaa cgaacaacag tgacttttga agcaaaagt aaaaacacag ttaggatgta gcacctgccc caggattcct gccctggct ttgcccaga ccttattcc agatgctgag agtgaccagg acagcagctc ctgaggccca gtggtcttct. ttccaacagg aaaagaaggc tgtgatgtcg ctgtcaggat catgccctgt ggcacagcac aggtggtggg aggtggttt ctgactgaga tgttgcctga tggatggaaa gaaatgtatt tttaagtcca aaagcatta tctgtggcg ttgcctggac atccactccc tgacagccca gacgacact gctggcctc ccttcagtct tgtggtttg ttgtgtttga tcagaatttt gggggaaatg gaaagtttt ctcaaggagc agctggggc agaatagta gtatttaagc aaatacttaa gtccaagcaa atcatcccca ttaaaaagct tttcctgtg gctagtagga aaaaaaaa aaaaaa MAALAPVGSF ASRGPRLAAG LRLLPMLGLL QLLAEPGLGR VHHLALKDDV RHKVHLNTFG P FFKDGVMVN VSSLSLNEPE DKDVTIGFSL DRTKNDGFSS YLDEVNICY LKKQSVSVTL LILDISRSEV RVKSPPEAGT QLPKILFSDR EKVLGQSQEP NVNPASAGNQ TQKTQDGGKS KRSTVDSKAM GEKSFSVHNN GGAVSQFFF NISTDDQEG LYSYFHKCLG KELPSDKFTF SLDIEITEKN PDSYLSAGEI PLPKLYISMA FFFFLSGTIW IHILKRNRND VFKIHLMAA LPFTKSLSLV FHAIDYHYS SQGFPIEGWA VVYVITHLLK GALLFITIAL IGTGWAFIKH ILSDKDKKIF MIVIPQLVLA NVAYIIIEST EEGTTEYGLW KDSLFLVDLL CCGAILFPVW WSIRHLQEAS ATDGKAAINL AKLKLFRHY VLVICYIYFT RIIAFLKLA VPFQWKWLYQ LLEDTATLVF FVLTYKFRP ASDNPYLQLS QEEEDLEMES VVTTSGVMES MKKVKKVTNG SVFPGGEWEG AV </p>	Homo sapiens
431	50847	Neurotensin Receptor type 2	NM_012344		<p> gagtgagagg gagggagcgc cggccgcggg agcgggatgg aaaccagcag cccgcggccc A ccgcggccca gctccaaacc ggggctgagc ctggacgccc ggctggcgct ggacactcgc ctctgggcca aggtgctgtt caccgcgtc tacgactca tctggcgct gggcgcgcg ggcaatgcgc tgctcgtgca cgtggtgctg aaggcgcgcg cggcgcgctg gggcgcgctg cgccaccacg tgctagcct ggcgtcgcg ggcctgctgc tgctgctggt cggcgctgccc gtgagactct acagcttcgt ttggttccac tacccttggg tcttcggcga cctgggctgc cgcggtact actcgtgca cgagctgtgc gcctacgcca cgggtgctgag cgtggcaggc ctgagcgccg agcgtgcct agcgtgtgc cagccctgc gtgcccgag cctgctgacg ccacgcccga cccggtggct ggtggcgctc tgctggggcg cctcgctcg cctcgccctg cccatggccg tcatcatggg gcagaagcac gaactcaga cggcgagcgg gagccggag ccgcctcgc gagtgcac ggtgctggtg agccgaccc cgtcccaagt cttatccag gtgaatgtgc tgggtctctt cgtgctcccc ttggcactaa ctgctttcct gaatgggggtc </p>	Homo sapiens

432	50847	Neurotensin Receptor type 2	NP_036476.1	PSSNPGLSLD ARLGVDTRLW AKVLFTALYA LIWALGAAGN ALSVHVVLKA P METSSPRPPR RAGRAGRRLRH HVLSLALAGL LLLLVGVPE LYSEVWFHYP WVFGLGCRG YFVHELCA Y ATVLSVAGLS AERCLAVCQP LRARSLLTPR RTRWLVALSW AASLGALPM AVIMGQKHEL ETADGEPEPA SRVCTVLVSR TALQVFIQVN VLVSVFLPLA LTAFLNGTV SHLLALCSQV PSTSTPGSST PSRLELLSEE GLLSFIVWKK TFIQGGQVSL VRHKDVRIR SLQRSVQVLR AIVVMYVICW LPYHARRIMY CYVEDDAWTD PLYNFYHYFY WVTNTLFYVS SAVTPLLLYA VSSFRKLFL EAVSSLCGEH HPMKRLPPKP QSPTLMDTAS GFGDPPETRT	Homo sapiens
433	53440	G Protein- Coupled Receptor LS53440	AX107037	<p>cagagaggct gtatttcagt gcagcctgcc agacctcttc tggaggaga ctggacaaaag A</p> <p>gggggtcacac attccttcca tacggttgag cctctacctg cctggtgctg gtcacagttc</p> <p>agcttcttca tgaagtga tcccaatggc aatgaatcca gtgtacata cttcatccta</p> <p>ataggcctcc ctggtttaga agaggtcag ttctggttgg ccttcccat gtgctccctc</p> <p>tacctattg ctgtgctagg taacttgaca atcatctaca ttgtgaggac tgagcacagc</p> <p>ctgcatgagc ccatgtatat atttcttgc atgctttcag gcattgacat cctcatctcc</p> <p>acctcatcca tgcccaaat gctggccatc ttctggttca attccactac catccagttt</p> <p>gatgcttgtc tgctacagat ttttgccatc cactccttat ctggcatgga atccacagt</p> <p>ctgctggcca tggcttttga ccgctatgtg gccatctgtc acccaactgc ccatgccaca</p> <p>gtacttacgt tgcctcgtgt caccaaaatt ggtgtggctg ctgtggtgag gggggctgca</p> <p>ctgatggcac cccttccctgt cttcatcaag cagctgccct tctgcccgc caatatcctt</p> <p>tccattcct actgcctaca ccaagatgtc atgaagtgg cctgtgatga tatccgggtc</p> <p>aatgtcgtct atggccttat cgtcatcatt tccgccattg gctggactc acttctcatc</p> <p>tccttctcat atctgcttat tcttaagact tgttgggtg tgacacgtga agccaggcc</p> <p>aaggcattg gcacttgcgt ctctcatgtg tgtgtgtgt tcataattc tgaaccttc</p> <p>attggattgt ccatggtgca tcgcttttagc aagggcggtg actctccgt gccgtcatc</p> <p>ttggccaata tctatctgct gggtcctctc gtgtcctcgt caattgtcta tggagtgaag</p> <p>acaaaggaga ttgacagcg catccttoga ctttccatg tggccacaca cgcttcagag</p> <p>ccctaggtgt cagtgatcaa acttcttttc cattcagagt cctctgattc agattttaat</p>	Homo sapiens

434	53440	G Protein- Coupled Receptor LS53440	CAC38935.1	gttaacattt tggaagacag tattcagaaa aaaaatttcc ttaataaaaa atacaactca gatccttcaa atagaaact ggttgaggaa tctccatttt ttcaatatta ttttcttctt tggtttcttg ctacataaa ttattaatac cctgactagg ttgtggttgg aggtttatta cttttcattt taccatgcag tccaaactca aactgcttct actgatggtt tacagcattc tgagataaga atggtacatc tagagaacat ttgccaagg cctaagcacg gcaaaaggaa ataaacacag aatataataa atagagataa tctagcttaa aactataact tctcttccag aactcccaac cacattggat ctccagaaaa tgctgtcttc aaaatgactt ctacagagaa gaaataattt ttctctctga cactagcact taaggggaaag attggaagta aagccttgaa aagagtacat ttacctacgt taatgaaagt tgacacactg ttctgagagt ttccacagca tatggaccct gtttttccca ttttaatttc ttatcaacc tttaattagg caaagatat attagtacc tcatgttagc catgggaaaa ttgatgttca tgggggatca gtgaattaaa tggggtcata caagtataaa aattaaaaa aaaaagact tcatgcccac tctcatatga tgtggaagaa ctgttagaga gaccacagg gtatgggtt agagatttcc agagtcttac atttctaga ggaggtattt aatttcttct cactcatcca gtgttgatt taggaatttc ctggcaacag aactcatggc tttaatccca cttagctattg cttattgtcc tggccaatt gccaattacc tgtgtcttgg aagaagtgat ttctaggttc accattatgg aagattctta ttcagaaagt ctgcataggc cttatagcaa gttatttatt tttaaaagt ccataggtga ttctgatagg cagtgggtt agggagccac cagttatgat gggaaagtatg gaatggcagg tcttgaagat aacattggcc ttttgagtgt gactcgtagc tggaaagtga gggaaatcttc aggaccatgc tttatttggg gcttttgca gtatggaaca gggactttga gaccaggaaa gcaatctgac ttaggcattg gaatcaggca tttttgcttc tgaggggcta ttaccaaggg ttaatagggt tcatcttcaa caggatatga caacagtgtt aaccaagaaa ctcaattac aaataactaaa acatgtgac atatatgttg taagtctcat tttcttttc aatctcagg ttccttgata tggattccta taacatgctt tcatcccttc ttgtaaatgga tatcatattt ggaaatgcct atttaatact tgtatttgc tctggactgt aagcccatga gggcactgtt tattattgaa tgtcatctct gtccatcatt gactgctctt tgctcatcat tgaatcccc agcaaatgac ctagaacata atagtgccta tgcttgacac cggttatttt tcatcaaac tgattccttc tgcctgaac acatagccag gcaatttccc agccttcttt gagtgggta ttattaatt ctggccatta ctccaatgt gagtggagat gacatgtgca atttctatac ctggctcata aaacctccc atgtgcagcc ttctatgttg acattaaatg tgacttggga agctatgtgt tacacagagt aaatcaccag aagcctggat ttctgaaaaa actgtgcaga gccaacctc tgtcatttgc aactcccat tgtatttga cgaggcagt ggataagtga aaaaataagt actattgtgt caagaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaa	MMVDENGES SATYFILIGL PGLEEAQFWL APFLCSLYLI AVLGNLTIIY IVRTEHSIHE P PMYIFLCMLS GIDILISTSS MPKMLAIFWF NSTTIQFDAC LIQMFHLSL SGMESTVILA MAFDYVAIC HPLRHATVLT LPRVTKIGVA AVVRGAALMA PLPVFIKQLP FCRSNILSHS YCLHQVMKL ACDDIRNVV YGLIVIIISAI GLDSLISFS YLLILKTVLG LTREAQAKAF GTCVSHVCAV FIFVVFIFGL SMVHRFSKRR DSPLPVILAN IYLLVPPVLN PIVYGVKTK IRQIRLRFH VATHASEP	Homo sapiens
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435	54053	Gaba (b) Receptor 2	NM_005458	atggtctccc gcgcgcctgc ggctgggcgc ctcatgcgcg gtggaactgg ctgcggctct ataaaatacg atcattgcag cctgttctag gcggtgaatc ctgacgcaag ggcgaggaca aaaaagctga gcaaaagtgt attccgggct cgctgcctcc ccctgagct gagtacaaca ggcatctggg cggcaccagc aatgccatga gagagaatgg gagtacaacg tcggaaccac ctctacagca ttcttcaaca aaccttatca ggatcccttg accgtgggct atcttcaaaa gtgggggggca ctgcgaaggga atccgccttc tatgcctaca gtcagcatcc atcatgtgca ttctgcatcg gtgccgaagc cagttcactc aaccaagcca aagatcacag	cgcgagggtc tactgtact gggggcctcc tcaccaagga ccatcgagca atgacacgga ggccgaacca agtcctccca cggataagaa cagccattct acgttcagag ttgagatttc aggggaatga tctgttgtgc ggtacgagcc ggtgaagtct cgaagcaatc cgaagcagat acaagcgtc tcctgcgcaa ggatccagga acgagacca ggaccattaa ctgtggccga caaaagacca tcctctctgc tcaagaacccg tccttgaggg tctctgaaa acacgaccgc atgtgaaaat tgctgctgat cagtgagaaa tcctggagca agggaactct cagacttct cgacttctc tcaagaacccg tcctgagaa ggatcccttg accgtgggct atcttcaaaa gtgggggggca ctgcgaaggga atccgccttc tatgcctaca gtcagcatcc atcatgtgca ttctgcatcg gtgccgaagc cagttcactc aaccaagcca aagatcacag	cgggcagcca gctgtgccc cggcgcccg ggtggccaa gatccgcaac gtgcgacaa cttgatggg agggtggaat aaaataccct gaagttgctc gttctctgag agacaccgag tgtcgggac atcgcggatc aacgagggag ttcttggtgg gcttgctgcc caagaccatc agcgtggg gacactgcag cttcaactac cttcttcggg attactcaa cacactggag gacctcatc cctcaccatc gaatcagaag gatgctctcc gaccttgaa ttttggggcc gaagaagaa cgactgtgt gtacagcatg ctgtgagaac catgtgttgc cgacgcaag cgctgtctcc catcatcttc gagaacaaac gaaagaagat cctggagggc agacttgaaa	ggcgggccgc ctctgtctgc ccagagacc ggcgcgtgtg gagtcactcc gcaaaaggtt tttggaggcg ctggtgcagc tatttcttc aagcactacc gtgcggaatg agcttctcca atccttgcc aacatgtatg gtcaggtgc acattggcgt tcaggaaaga ccagcaaagt agggccatgg acggaccaca gtcacgggtc tttcaagaca atcatcaatg ctggagcagc ctctataaga ctcatataag tatgcttcca acacttgca atgtttgcaa atcatcaagg atcctgatct gagccggacc acccatatga ggttgtttct tagcttggtt ccatctggct tgcattcgct tggttggttc cctggtggtc cagcgtgggg gggaccagcc ggagtcgag tcacctctg caacgcagaa ccacctcgt aaaaccatcg tgagctgca gaggtcacca	accgcgcgc cggggcctgg catcatgggc ctatccccgc cttccctcgac ctacgatgca cgtcacatcc tgcaaccacg atcagacaat ggaccgtccc agtggaacgc acctgactgg acgttctgtat taccagtgc gaatatggca tcagtggatc caactcatcc ggatttcgag acattggcgt gtatttcgag gtccacagca ctccacagat tcacgggta agacactgca cgctgggcag gatcatcctc aagttgtatt gcaggaggtt gaagggtggga acaccatcag ctccctacct tgctggccag tgcttttctc atacatgaac tggtccttgat tggtccttct cgtcaggac agctccacgc gcttgatgc tggtggacccc ggatatctcc tggttcgctc gacctgggt tagcttggtg gacctgcaac caacgtgggg caatgtgag cctgggtattc caggtcgattc caccagtgtg cctgcgaatg ggacacacca	Homo sapiens
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436	54053	Gaba (b) Receptor 2	NP_005449.1	ctgtaa	gaaaagacca cctacattaa acagaaccac taccaagagc tcaatgacat cctcaacctg gaaaacttca ctgagagcac agatggagga aaggccattt taaaaataca cctcgatcaa aatccccagc tacagtggaa cacaacagag ccctctcgaa ctcgataagaa tccatagaa gatataaact ctccagaaca catcacagct cggtctgccc tccagctccc catcctccac cacgctacc tcccatccat cggagcgctg gagccagct gtgtcagccc ctgctcgagc ccaccgcga gccccgcga cagacatgtg ccaccctct tccgagtcac ggtctcgggc ctgtaa	Homo sapiens
437	55728	ETL protein	NM_022159	ctgtaa	gaaaagacca cctacattaa acagaaccac taccaagagc tcaatgacat cctcaacctg gaaaacttca ctgagagcac agatggagga aaggccattt taaaaataca cctcgatcaa aatccccagc tacagtggaa cacaacagag ccctctcgaa ctcgataagaa tccatagaa gatataaact ctccagaaca catcacagct cggtctgccc tccagctccc catcctccac cacgctacc tcccatccat cggagcgctg gagccagct gtgtcagccc ctgctcgagc ccaccgcga gccccgcga cagacatgtg ccaccctct tccgagtcac ggtctcgggc ctgtaa	Homo sapiens

Homo
sapiens

P

aagattata atattcttac aaggatcact caactaggaa taattatttc actgatttgt
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 ttttctaatt attctaaaa
 CHLDNVCIAA NINKTLTKIR SIKEPVALLQ
 TVCIENVNAN YKNNTISAKD TLSNSTLTFE VKTNVNFVQR
 ILAESSILG RISQSFQKTT EFDTNSTDIA LKVFFFDSYN
 LMHTVEQATL VAVAFLYKYS IGPLLSSDN FLLKPNQYDN
 RKAAYDSNGN FTLSHRKVTD RYRSLCAFWN YSPDTMNGSW
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 NLCCSLFLAE LVFLVGINTN TNKLFCSIIA GLLHYFFFLAA
 NKGFHKNFY IFGYLSPAW VGFSALGYR YYGTTKVCWL
 NLLAFGVIIY KVRHRTAGLK PEVSCFENIR SCARGALALL
 TAYLFTVSNV FQGMFIFLFL CVLSRKIQEE YYRLFKNVPC
 VLVHVHASV
 CFGLR

NP_071442.1

ETL protein

55728

438

Homo
sapiens

A

NM_000740

Muscarinic
acetylcholin
e Receptor
M3

56923

439

atgacacttg acaataacag tacaacctcg cctttgtttc caaacatcag ctctctctgg
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 aatgtttctc gagcagctgg caatttctcc tctccagacg gtaccacoga tgacctctg
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440	56923	Muscarinic acetylcholin e Receptor M3	NP_000731.1	<p>acggtcaaca actacttctt ctttaagcctg gcctgtgccc atctgattat cgggggtcatt tcaatgaatc tgtttacgac ctacatcatc atgaatcatg gggccttagg gaacttggcc tgtgacctct ggccttgcct tgaactacgta gccagcaatg cctctgttat gaattctctg gtcatcagct ttgacagata cttttccatc acgaggccgc tcaatgacct agccaaacga acaacaaaga gagccggtgt gatgatcgtt cttggcttggg tcaatctctt tgtcctttgg gctcctgcca tctgttctg gcaatacttt gttggaaga gaactgtgcc tccgggagag tgcttcattc agttcctcag tgagcccacc attacttttg gcacagccat cgtgctttt tatatgctg tcaccattat gactatttta tactggagga tctataagga aactgaaaa cgtacaaaag agcttgcctg cctgcaagcc tctgggacag aggcagagac agaaaacttt gtccacccca cgggcagttc tgaagctgc agcagttacg aacttcaaca gcaaaagcatg aaacgctcca acagaggaa gtatggccgc tgccacttct ggttcacaac caagagctgg aaaccagct ccgagcagat ggaccaagac cacagcagca gtgacagttg gaacaacaat gatgtgctg cctccctgga gaactccgac tctccgacg agggagacat tggctccgag acgagagcca tctactccat cgtgctcaag ctccgggtc acagaccat cctcaactcc accaagttac cctcatcgga caactcgag gtgcctgagg aggcagctgg gatggtggac ttggagagga aagccgacaa gctgcaggcc cagaagagcg tggacgatgg aggcagtttt ccaaaagct tctcaagct tcccatccag cttagatcag ccgtggacac agctaagact tctgacgtca actcctcagt gggtaagagc acggccactc tacctctgtc ctteaaggaa gccactctgg ccaagaggtt tgccttgaag accagaagtc agatcactaa gcggaagaag atgtccctgg tcaaggagaa gaaagcgcc cagaccctca gtgcgatctt gcttgcttc atcatcactt ggaccccata caacatcatg gtctgtgtga acacctttg tgacagctgc ataccacaaa ccttttgaa tctgggctac tggctgtgt acatcaacag caccgtgaac cccgtgtgct atgctctgtg caacaaaaa gagcgcaag cagcagtagc gctgctgtg tgccagtgtg acaaaaaa gagcgccctg tag</p>	<p>Homo sapiens</p>
441	57180	Leukotriene B4 Receptor BLTR2	NM_019839	<p>GGHTVWQVVF IAFITGILAL VTIIGNILVI VSEKVNKQLK TVNNYFLLSL ACADLIIGVI SMNLFTTYII MNRWALGNLA CDLWLAIDYV ASNASVMNLL VISFDYFESI TRPLTYRAKR TTKRAGVMIG LAWVISFVLW APAILFWQYF VGKRTVPPGE CFIQFLSEPT ITFGTAIAAF YMPVTIMTIL YWRIYKETEK RTKELAGLQA SGTEAETENF VHPTGSSRSC SSYELQQOSM KRSNRRKYGR CHEWFTTKSW KPSSEQMDQD HSSSDSWNNN DAAASLENSA SSDEEDIGSE TRAIYSIVLK LPGHSTILNS TKLPSSDNIQ VPEELGMVD LERKADKLQA QKSVDDGGSF PKFSKLPQI LESAVDTAKT SDVNSSVGKS TATLPLSFKE ATLAKREALK TRSQITKRKR MSLVKEKRAA QTLSAILLAF IITWTPYNIM VLVNTFCDSC IPKTFWNLGY WLCYINSTVN PVCYALCNKT FRTTFKMLLL CQCDKKKRRK QYQQRQSVI FHKRAPEQAL</p>	<p>Homo sapiens</p>

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445	74514	5-HT5A Receptor	NM_024012	LTEQTLKGRL REKLADCEQS PTSSRTSSLG SGGPDCAITV KSPGREPGRD HLNQVAMNVR TGSAQADGSD SEKP atggaattac cagtgaaact aacctccttt tccctctcca cccctccccc ttggagacc A aaccacagcc tcggcaaga cgacctgcgc cccagctcgc cctgtctctc ggtcttcgga gtgcttattc tcacctgtct gggctttctg gtggcgcgga cgttcgctg gaacctgctg gtgctggcga ccatectcgc tctacgcacc ttccaccgcg tgcaccacaa cctggtggca tccatggccg tctcgatgt cctgggtggc gcgtgggtca tgcgctgag cctggtgcat gagctgtccg ggcgcgctg gcagctaggt cggaggtgtt gccagctttg gatcgctgc gacgtgcttt gctgcacgc cagcatctgg aacgtgacg ccatagccct ggaccgctac tggctccatca cgcgccacat ggaatacacg ctccgcacc gcaagtgcgt ctccaacgtc atgatcgcg tcacctggc actctccgct gtcatctctc tggccccgct gcttttggc tggggagaga cgtactctga gggcagcgag gagtgcagg taagccgga gccctctac gccgtgttct ccaccgtagg cgccttctac ctgcgctct gtgtgtgtct cttcgtgtac tggagatctt acaaggctgc caagtctcgc gtgggctcca ggaagaccaa tagcgtctca cccatatccg aagctgtgga ggtgaaggac tctgccaaac agcccagat ggtgttca gtccgccaag ccaccgtcac ctccagcca gaaggggaca cgtggcgga gcagaaggag cagcgggccg cctcatggt gggcatctc attgcgctg acatcccg catctggaaa ttctttctca ccgagctcat cagtcctcgc tctctctta acccctgat ctatacgct agcatcttcc tgtggttg ctactccaa cgccttcaa aactctttt ctaggcaaca ctga ttcaacaaga actacaacag cgccttcaa aactctttt ctaggcaaca ctga MDLPVNLTSE SLSTPSPLET NLSLGGDLR PSSLLSVFG VLILTLGL VAATFAWNLL P VLATILRVRT FHRVPHNLVA SMAVSDVLA ALVPLSLVH ELSGRWQLG RRLCQLWIAC DVLCTASIW NVTALDRY WSITRMEYT LRTRKCVSNV MIALTWALSA VISLAPLLFG WGETYSEGSE ECQVSREPS AVFSTVGAFY LPLCVLFVY WKIYKAKEF VGSRKTNVS PISEAVEVKD SAKQPMVFT VRHATVTFQ EGDWREQKE QRAALMVGIL IGVFVLCWIP FFLTELISPL CSCDIPAIWK SIFLWLGYSN SFENPLIYTA FNKNYNSAFK NFFSRQH gtaatgcaga gataataaa ctctctaggt ccataggtct tataataatt taataaccta A aacatggtat acaaatctct ccaaaccaa taacataatt atagtttcaa aaagtctccc aaactttcaa gtagatttt attgctttga tgaaggctt taaatatgaa aagtcttgcc tgtgaaggcc aatcctttc ccgtggactg ggaatctatg aaatacagaa atgtgcccag gggttcattc cctaataac catcatcac atttctcaac ctccctaata accagccacc atgtgagaag gatccacagt tactgttat gactataatt aactagtacc tgggactggt cagtgagggt gtttgcaacc tgatgctaag gatgtcaag ttgtctcggc ctctgttccc agccagtaag taattccctg gctcgggccc ataccctca atcttggtca gctgattatg acaggcagac agcacagtaa ataacactat atattaagaa acccaaaagc atagtatca atggatatata cccaacagca tcttagaat ggagagctct tagcaaggcc ctccaatgtg aaggtcaaca cagtcactgt gatgcgtga ttctcatttt gtaaaagcatg atctctggtg gtcattttta tcttctaac ttattgaaa agtctcctgt ttggggggcc cgccctggt cacagccaga ctgactcagt ttccctggga ggtcccgctc gagcccgctc ttccctccc tctgcccgc ccagccctc gcccacctc cggcgccgc acatctgctc gtcagctcc agacggcgcc cggaccccc ggcgcggtat ccagccaggt gggagcccc cagatgaggt	Homo sapiens
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447	81765	Thromboxane A2 Receptor	NM_001060	atggaattac cagtgaaact aacctccttt tccctctcca cccctccccc ttggagacc A aaccacagcc tcggcaaga cgacctgcgc cccagctcgc cctgtctctc ggtcttcgga gtgcttattc tcacctgtct gggctttctg gtggcgcgga cgttcgctg gaacctgctg gtgctggcga ccatectcgc tctacgcacc ttccaccgcg tgcaccacaa cctggtggca tccatggccg tctcgatgt cctgggtggc gcgtgggtca tgcgctgag cctggtgcat gagctgtccg ggcgcgctg gcagctaggt cggaggtgtt gccagctttg gatcgctgc gacgtgcttt gctgcacgc cagcatctgg aacgtgacg ccatagccct ggaccgctac tggctccatca cgcgccacat ggaatacacg ctccgcacc gcaagtgcgt ctccaacgtc atgatcgcg tcacctggc actctccgct gtcatctctc tggccccgct gcttttggc tggggagaga cgtactctga gggcagcgag gagtgcagg taagccgga gccctctac gccgtgttct ccaccgtagg cgccttctac ctgcgctct gtgtgtgtct cttcgtgtac tggagatctt acaaggctgc caagtctcgc gtgggctcca ggaagaccaa tagcgtctca cccatatccg aagctgtgga ggtgaaggac tctgccaaac agcccagat ggtgttca gtccgccaag ccaccgtcac ctccagcca gaaggggaca cgtggcgga gcagaaggag cagcgggccg cctcatggt gggcatctc attgcgctg acatcccg catctggaaa ttctttctca ccgagctcat cagtcctcgc tctctctta acccctgat ctatacgct agcatcttcc tgtggttg ctactccaa cgccttcaa aactctttt ctaggcaaca ctga ttcaacaaga actacaacag cgccttcaa aactctttt ctaggcaaca ctga MDLPVNLTSE SLSTPSPLET NLSLGGDLR PSSLLSVFG VLILTLGL VAATFAWNLL P VLATILRVRT FHRVPHNLVA SMAVSDVLA ALVPLSLVH ELSGRWQLG RRLCQLWIAC DVLCTASIW NVTALDRY WSITRMEYT LRTRKCVSNV MIALTWALSA VISLAPLLFG WGETYSEGSE ECQVSREPS AVFSTVGAFY LPLCVLFVY WKIYKAKEF VGSRKTNVS PISEAVEVKD SAKQPMVFT VRHATVTFQ EGDWREQKE QRAALMVGIL IGVFVLCWIP FFLTELISPL CSCDIPAIWK SIFLWLGYSN SFENPLIYTA FNKNYNSAFK NFFSRQH gtaatgcaga gataataaa ctctctaggt ccataggtct tataataatt taataaccta A aacatggtat acaaatctct ccaaaccaa taacataatt atagtttcaa aaagtctccc aaactttcaa gtagatttt attgctttga tgaaggctt taaatatgaa aagtcttgcc tgtgaaggcc aatcctttc ccgtggactg ggaatctatg aaatacagaa atgtgcccag gggttcattc cctaataac catcatcac atttctcaac ctccctaata accagccacc atgtgagaag gatccacagt tactgttat gactataatt aactagtacc tgggactggt cagtgagggt gtttgcaacc tgatgctaag gatgtcaag ttgtctcggc ctctgttccc agccagtaag taattccctg gctcgggccc ataccctca atcttggtca gctgattatg acaggcagac agcacagtaa ataacactat atattaagaa acccaaaagc atagtatca atggatatata cccaacagca tcttagaat ggagagctct tagcaaggcc ctccaatgtg aaggtcaaca cagtcactgt gatgcgtga ttctcatttt gtaaaagcatg atctctggtg gtcattttta tcttctaac ttattgaaa agtctcctgt ttggggggcc cgccctggt cacagccaga ctgactcagt ttccctggga ggtcccgctc gagcccgctc ttccctccc tctgcccgc ccagccctc gcccacctc cggcgccgc acatctgctc gtcagctcc agacggcgcc cggaccccc ggcgcggtat ccagccaggt gggagcccc cagatgaggt	Homo sapiens

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 NP_001051.1 MWPNSSSLGP CFRPTNITL ERRLIASPF AASFCVVGLA SNLLALSVLA GAPQGSHTR P
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 LLGAAMASER YGIVTRPFSR PAVASQRRW ATVLVWAAA LALGLLPLLG VGRYTVQYPG
 SWCFLTLGAE SGDVAFLGF SMLGLSVGL SFLINTVSA TLCHVYHGQE AAQRPDSE
 VEMAAQLLGI MVVASVCWLP LLVFIAQTVL RNPFPAMPAG QLSRTTEKEL LIYLRVATWN
 QILDPMVYIL FRAVLRLRQ PRLSTRPRSL SLQPQLTQRS GLQ

Homo
sapiens

449	98519	Chemokine (C NM_005283 motif) XC Receptor 1 (CCXCR1)	atggagtcct caggcaacc agagagcacc accctttttt actatgacct tcagagccag A	Homo sapiens
			ccgtgtgaga accaggcctg ggtctttgt accctgcgca ccactgtcct gtactgcctg	
			gtgtttctcc tcagcctagt gggcaacagc ctgggtcctgt gggctcctggt gaagtatgag	
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			gccaaacagc agctagaata cgccctgtct atctgccga accctgcctt cctccactgc	
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			tcacctgggt ccttcgcta tgaggcgcc cctcttact ga	
450	98519	Chemokine (C NP_005274.1 motif) XC Receptor 1 (CCXCR1)	MESSGNPEST TFFYYDLQSQ PCENQAWFEA TLATTVLYCL VFLLSLVGN LVLWLVKYE P	Homo sapiens
			SLESLTNIFI LNLCLDLVF ACLLPWISP YHWGWLIGDF LCKLLNMIFS ISLYSSIFFL	
			TIMTIHRYLS VVSPLSLRV PTLRCRLVLT MAVWVASILS SILDITIFHKV LSSGCDYSEL	
			TWYLTSVYQH NLFFLLSLGI ILFCYVEILR TLFRSRKRR HRTVKLIFAI VVAYFLSWG P	
			YNFTLFLOTL FRTQIIRSC AKQOLEYALL ICRNLAFSHC CFNPVLYFV GVKFRTHLKH	
			VLRQWFECRL QAPSPASIPH SPGAFAYEGA SFY	
451	130108	G Protein-Coupled Receptor GPR75	gcgatggcga tgatgcctct agtcctgcat catccagagc ggcaggcgag ctgggggtccg A	Homo sapiens
			gactgcgaga tggaggaggg gcgcgctgcg gcaccgcgca ggccttatctg tcttgggcct	
			cttttgtcac atattgtcca tctgtgagct gaggcctcga ctacactagt attttgggg	
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Accession	Gene	Protein	NP_006785.1	NP_003979	Accession	Gene	Protein	NP_006785.1	NP_003979	Accession	Gene	Protein	NP_006785.1	NP_003979
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<p> FIVEISFFDP AFKRTNFDF FHLTSSGFII MSKLTAVIA LKTSKSHLCL PMSLSIAGK KAILSLYVD FTECVAVSV SYIMIAQTLR KNAQVRKCPP VITVDASRPQ PFMGVPVQGG GDPIQCAMPA LYRNQYNKL QHVQTRGYTK SPNQLVTPAA SRLQLVSAIN LSTAKDSKAV VTCVIVLSV LVCLPLGIS LVQVWLSNG SPILYQFELF GFTLIFKSG LNPFYSRNS AGLRRKVLWC LQYIGLGFCC CKQKRLRAM GKGNLEVNRI KSSHETNSA YMLSPKPKK FVDQACGPH SKESMVSPKI SAGHQHCGQS SSTPINTRIE PYYSIYNSSP SQEISSPCNL QVNSFGFAN SYIAMHYHTT NDLVQEYDST SAKQIPVPSV </p>														
<p> ataacagcat gaagtgcctg ggaactggaa taggcctgtc ctctccctcg accctcccc A tcttctgtccc tctgtcacc cctcgtcgtg tccctccctc cggcgagggc cgcctttata caactgcctc agagtgcgag gtcgggatag ctgtccaagg tctccccag cactgaggag ctgcctgtct gccctctgc gcgcggaag cagcagccaa tgatggttgc cgcaatggcc tgaatccaa actagggtcc agaattgcta caacagtccc agcagccaa tgatggttgc cgcaatggcc tgaatccaa gtactacaga ctttgtgata agcgtgaagc ttggtggcatc gtcctagaaa cgggtggccac agccgggggtt gtgacctcgg tggccttcat gctcactctc ccgactctcg tctgcaaggt gcaggactcc aacaggcgaa aaatgctgcc tactcagttt ctcttctcc tgggtgtgtt gggcatcttt ggcctcact tcgccttcat cctcttctc gacgggagca cagggccac acgcttcttc ctcttgga tcccttttcc cctgtcttc cctgtctgc tggctcactg tgtcagtcctg accaagctcg tccgggggag gaagccctt tccctgttgg tgattctggg tctggccctg ggcctcagc tagtccagga ttttatgct attgaatata tttgctgtgac catgaatagg accaagctca atgtctttt tgagcttcc gctcctcgt gcaatgaaga ctttgtctc ctgctcact acgtcctctt ctgtatggc ctgaccttcc tcatgtctc cttcaccttc tgtgttctc tcacgggctg gaagagacat gggggccaca tctacctcac </p>														

454	133117 G Protein- Coupled Receptor RAIG1	NP_003970.1	gatgctcctc tccattgcca tctgggtggc ctggtacacc ctgctcatgc ttcttgactt tgaccgcagg tgggatgaca ccattctcag ctccgccttg aatgccaatg gctgggtgtt cctgttggtt tatgttagtc cagagttttg gctgctcaca agcaaacgaa accccatgga ttatcctgtt gaggatgctt tctgtaaac tcaactcgtg aagaagagct atggtgtgga gaacagagcc tactctcaag aggaatacac tcaaggtttt gaagagacag gggacacgct ctatgcccc tattccacac atttcagct gcagaaccag cctcccaaaa aggaattctc catccacgg gccacgctt ggccgagccc ttacaaagac tatgaagtaa agaaagaggg cagtaactc tgcctgaag agtgggacaa atgcagccgg gcgacagatc tagcgggagc tcaaagggat gtgggcgaaa tcttgagctc tctgagaaaa ctgtacaaga cactacggga acagtttgcc tccctccag cctcaaccac aattcttcca tgcctgggct gatgtgggct agtaagactc cagttcttag aggcgctgta gtatttttt ttttttgtct catcctttgg atacttcttt taagtggag tctcaggcaa ctcaagttta gaccttact ctttttgttt gtttttgaa acaggatctt gctctgtcac ccaggcttga gtgcagtgtt gcgatcacag ccagtgacag cctcgaccac ctgtgctcaa gcaatcctcc cctccatc tcccaagtg ctgggatgac agcgtgagc cacagctccc agcctaggcc cttaattctt tagttatttt ccatggacta aaggtctggt catctgagct cagcctggcc cacacagctc tagggcctg ctccttaac tcacagtggg ttttgtgagg ctctgtggcc cagagcagac ctgcatact gagcaaaaat agcaaaagcc tctctcagcc cactggcctg aatctacac tgaagcaaac ttgtgggac cccgctccc caaccttct tgcctgggta ggagaggcta aagatcaccc taaatctact catctctcta gtgtgctc acatgggccc tcagcagctc cccagacca attcacaggt caccctctc tcttgcat gtcccaaac ttgctgtcaa ttcgagatc taatctccc ctacgctctg ccaggaaattc ttccagacct cactagcaca agcccggtg ctccttgtca ggagaatttg tagatcattc tcaattcaaa ttctggggc tgatacttct ctcatctgc acccaacct ctgtaaatag atttacgcga ttacggctg cattctgtaa gtgggcatgg tctcctaag gaggaagtgt cattgtataa taagtattc acctgagtat gcaataaaga tgtggtggcc actctttcat ggtggtggca gcaaaaaaaa aaaaa MATTVPDGR NGLKSKYYRL CDKAEAWGIV LETVATAGW TSVAFMLTLP ILVCKVQDSN P RRKMLPTQFL FLGLVLGIFG LTFAFIIGLD GSTGTRFFL FGILFSICFS CLLAHAVSLT KLVRGRKPLS LLVILGLAVG FSLVQDVIAI EYIVLTNNRT NVNVESELSA PRNEDFVLL LTYVLFMLAL TFLMSSFTFC GSFTGWKRHG AHIVTMLLS IAIWVAVITL LMLPDFRRW DDTILSSALA ANGVFLLAY VSPEFWLLTK QRNPNDYPVE DAFCKPQLVK KSYGVENRAY SQEITQGE ETGDTLYAPY STHFQLQNP PQKEFSIPRA HAWPSYKDY EVKKEGS atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc A acgggcatca cagccttctc catgcccagc tggcagctgg cactgtgggc accagcctac ctggccctgg tgcgtgtggc cgtgacgggt aatgcctatg tcatctggat cctcctggc catcgaggga tgcgcacatg caccactac ttcactgtca atctggcgtt ggtgacctc tgcattggct ccttcaatg cgccttcaac tttgtctatg ccagccacaa catctgtac tttgccctg ccttctgcta ctccagaac ctcttccca tcacagccat gtttgtcagc atctactcca tgaccgcat tgcctccgac aggtacatgg ccatcgtcca cccctccag cctcggcttt cagctcccag caccaggcg gttattgctg gcatctggct ggtggctctc gccctggct cccctcagt ctctactcc accgtacca tggaccagg tggcaccag	Homo sapiens
455	152198 Tachykinin Receptor 2	NM_001057	atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc A acgggcatca cagccttctc catgcccagc tggcagctgg cactgtgggc accagcctac ctggccctgg tgcgtgtggc cgtgacgggt aatgcctatg tcatctggat cctcctggc catcgaggga tgcgcacatg caccactac ttcactgtca atctggcgtt ggtgacctc tgcattggct ccttcaatg cgccttcaac tttgtctatg ccagccacaa catctgtac tttgccctg ccttctgcta ctccagaac ctcttccca tcacagccat gtttgtcagc atctactcca tgaccgcat tgcctccgac aggtacatgg ccatcgtcca cccctccag cctcggcttt cagctcccag caccaggcg gttattgctg gcatctggct ggtggctctc gccctggct cccctcagt ctctactcc accgtacca tggaccagg tggcaccag	Homo sapiens

329/448

Homo
sapiens

P

456 152198 Tachykinin
Receptor 2 NP_001048.1

tgcgtggtg cctggcccg agacagcgg ggaagacgc tctctctgta caacctcgtg
 gtgatgcgc tcatctactt cctgcgcctc gcgtgatgt ttgtagccta cagcgtcatc
 ggctcacgc tctggaggcg cgcagtgcgc ggacatcagg cgcacgggtgc caacctccgc
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 gggctatggt ttgggtatgg ttgcttgcc cccacacaaa ctcatgttga aattga
 MGTCDIVTEA NISSGESNT TGITAFSMPs WQALWAPAY LALVLAVTG NAIVIIILA
 HRRMRTVTNY FIVNLALADL CMAAFNAFN FVYASHNIWY FGAFICYFQN LFPITAMFVS
 IYSMTAIAAD RYMAIVHPFQ PRLSAPSTKA VIAGIWLVAL ALASPQCFYS TVTMDQGATK
 CVVWAPEDSG GKTLILYHLV VIALIYFLPL AVMFVAYSVI GLTLMRRRAVP GHQAHGANLR
 HLQAKKKFVK TMVLVLTFA ICWLPYHLYF ILGSFQEDIY CHKFIQQVYL ALFWLAMSSST
 MYNPITYCCL NHRFRSGFRL AFRCCPWVTP TKEDKLELTP TTSLSSTRVNR CHTKETLEMA
 GDTAPSEATS GEAGRPQDGS GLMFGYGLLA PTKTHVEI

Homo
sapiens

A

457 152201 Thyrotropin
Receptor NM_000369

ccgctcccg gctcctctt ggcctggggt aaccggaggt gcagagctga gaatgagcgc
 attctcgagg atggagaaat agccccgagt cccgtggaaa atgagggcgg cggacttgct
 gcagctgggt ctgctgctgc acctgcccag ggacctgggc ggaatggggt gttcgtctcc
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 cccagctta ccgcccagta cgcagactct gaagcttatt gagactcacc tgagaactat
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 ttattccact gatatattct ttatactga aattacagac aaccttaca tgacgtcaat
 ccctgtgaat gcttttcagg gactatgcaa tgaacacctg acactgaagc tgtacaacaa
 tggctttact tcagtcacag gatatgcttt caatgggaca agctgggatg ctgtttacct
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 accaagcttg ctggacgtgt ctcaaacagg tgtcactgcc ctccatcca aaggcctgga
 gcaactgaag gaactgatag caagaaacac ctggactctt aagaaacttc cacttccct
 gactttcctt cacctcac gggctgacct ttcttaccac agccactgct gtgcttttaa
 gaatcagaag aaatcagag gaatccttga gtccctgatg tgtaagtga gcagtatgca
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 caccatagt ggggacagt aagacatggt gtgtaccccc aagtcggatg agttcaaccc
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458	152201	Thyrotropin Receptor	NP_000360.1	MRADLLQLV LLLDLPRDLG GMGSSPPCE CHQEEDFRVT CKDIQRIPLS PFSTQTLKLI P	Homo sapiens
				ETHLRTIPSH AFSNLPNISR IYVSDITLQ QLESHSFYNL SKVTHIEIRN TRNLTYIDPD	
				ALKELPLKLF LGIENTGLKM FPDLTKVYST DIFFILEITD NPYMTSIPVN AFQGLCNETL	
				TLKLYNNGFT SVQGYAFNGT KLDVAVLNKN KYLTVIDDKDA FGVYSGPSL LDVSQTSVTA	
				LPSKGLEHLK ELIARNTWTL KKLPLSLSLF HLTRADLSYP SHCCAFKNQK KIRGILESIM	
				CNESSMQSLR QRKSVNALNS PLHQEYENL GDSIVGYKEK SKFQDTHNNA HYVFFEEQE	
				DEIIGFQEL KNPQEEITLQ FDSHYDYTIC GDSIEDMVCTP KSDEFNCPED IMGYKFLRIV	
				VMFVSLALL GNVEVLILL TSHYKLVNPR FLMCNLAFAD FCMGMYLLLI ASVDLYTHSE	
				YNNHAIDWQT GPGCNTAGFF TVFASELSVY TLTVTILERW YAITFAMRLD RKIRLRHACA	
				IMVGGWVCCF LLALLPLVGI SSYAKVSICL PMDTETPLAL AYIVFVLTIN IVAFVIVCCC	
				HVKIYITVRN PQYNPGDKDT KIARMAVLI FTDFICMAPI SFYALSAILN KPLITVSNK	
				ILLVLFYPLN SCANFLYAI FTKAFQRDVF ILLSKFGICK RQAQAYRGQR VPPKNSTDIQ	
				VQKVTHDMRQ GLHNMEDVYE LIENSHLTPK KQQISEEYM QTVL	
459	152245	C-C Chemokine Receptor 2	NM_000648	caggactgcc tgagacaagc cacaaagctga acagagaaaag tggattgaac aaggacgcac A	Homo sapiens
				ttcccacagta catccacaac atgctgtcca catctcgttc tcggtttatc agaaatacca	
				acgagagcgg tgaagaagtc accacctttt ttgattatga ttacggtgct cctgtgcata	
				aatttgacgt gaagcaaat ggaggcccaac tctgcctcc tctgtactcg cgtgtgttca	
				tccttggtt tgtgggcaac atgctggtcg tctcatctt aataaactgc aaaaagctga	
				agtgcctgac tgacatttac ctgctcaacc tggccatctc tgatcgtctt ttcttatta	
				ctctcccatt gtgggctcac tctgctgcaa atgagtggtt ctttgggaat gcaatgtgca	
				aattattcac agggctgtat cacatcggtt atttggcgg aatctcttc atcatcctcc	
				tgacaatcga tagatactcg gctattgtcc atgctgtgtt tgcttataaa gccaggacgg	

460	152245 C-C Chemokine Receptor 2	NP_000639.1	<p> tccaccttgg ggtggtgaca agtgtgatca cctggttgggt gggtgtggtt gggtgtggtt gttctgtgct caggaatcat ctttactaaa tgccagaaa agattctgt ttatgtctgt ggccttatt ttccacgagg atggaataat ttccacacaa taatgaggaa ctttttgggg ctggtctctgc cgctgctcat catggtcatc gaggcatagg gcagtgcag tcatcttcac catcatgatt gtttactttc acgagaagaa gaggcatagg tccctataac attgtcattc tccgaacac ttccaggaa tttctggcc tgagtaactg tgaagcacc agtcaactgg accaaccac gcaggtgaca gagactcttg ggatgactca ctgtgcatc aatcccatca tctatgctt cgttggggag aagttcagaa ggtatctctc ggtgtcttc cgaagacaca tcaccaagcg cttctgcaaa caatgtccag ttttctacag ggagacagt gatggagtga cttcaacaaa cagccttcc actggggagc aggaagtctc ggctggttta taaaacgagg agcagttga ttgtgttta taaagggaga taacaactcg tatatacaa caaacttcaa ggtttgttg acaatagaa acctgtaaa caggtgcccc ggaacctcag ggtgtgtgt actaatagag actatgtcac ccaatgcata tccaaacatgt gctcagggaa taatccagaa aaactgtgg tagagacttt gactctccag aaagctcatc tcagctcctg aaaaatgcct cattaacttg tgctaactct ctttttctag tcttcataat ttcttcactc aatctctgat tctgtcaatg tcttgaaatc aagggccagc tgagagtgaa gaagagaatg tgacaggcac agatgagtg gagtgaggga tagtggggtc agggctgaga ggagaaggag ggagacatga gcatggctga gctgggacaa agacaaaggt gagcaaaagg ctacgcatt cagccaggag atgatactgg tccctagccc catctgccac gtgtatttaa ccttgaaggg ttaccagggt caggagagt ttgggaactg caataaacctg ggagttttgg tggagtcgga tgattctctt ttgcataagt gcataacata tttttgcttt attacagttt atctatggca ccatgcaac ttacattga aatctatgaa atatcatgct ccattgttca gatgcttctt aggccacatc cccctgtcta aaaattcaga aaattttgt ttataaaga tgcattatct atgatagct aatatatga tatgcaatat aaaatttag MLSTSRSRFI RNTNESGEEV TTFDDYDGA PCHKFDVKOI GAQLLPPLYS LVFIFGVGN P MLVLLILINC KKLKCLTDIY LLNLASDLL FLITLPLWAH SAANEWVFGN AMCKLFTGLY HIGYFGGIFV IILLIDRYL AIVHAVFALK ARTVTFGVVT SVITWLAVF ASVPGLIFTK COKEDSVYVC GPYFPRGWN FHTIMRNILG FFLSNCEST SQLDQATQVT ETILGMTHCCI AVRVFTIMI VYFLFWTPYN IVILNFTQE FFLSNCEST SQLDQATQVT ETILGMTHCCI NPIIYAFVGE KFRRYLSVFF RKHITKRFCK QCPVFYRETQV DGVSTNTTPS TGEQEVSAGL CAGAAATCCT CAGGTCCCAC AGAATGAAC ACCTTTTCTA AAATAAGTC AAGCCAAGCT A GTCCTACCCC AAAGAAAATC CTAGCAAGCA AAGGTGGCTT CCTTCTCTGAG GCCCCAGCCA GGTGTGTCCA ACCGTAGGAG CCACAGCTCA GAGATCAGAG TGACTTAACA GTTAGAGGGC ACTTGATGAG TAAGTGAA TAGGGAAACC AAGTCAGACG ACACCTCCCT TGTGAGTCCC AACCATGTCT ACATCTGGAG AAGAACAGT AAGTCAAGGG ATCAGAGCT GTGATTAGA GACTGCCAGG GTCCATATGA CCAAGCGGGT TGAAGCTGGG GTGAGGATC CATTATCTGA ATTTTCCACT CTATGGATGA TCACCTTTTAT TCTTTTCTCTT TTCTTGAATT TATTTCCATT TGTATTATCC TAAATTTCCCT GGTAGATCAC CTGTGAAAGC TTGCAACTGT CTGATAAGAA TAAAGGGGA AGGATTGAC TTACAGCAG AGACTTCAGA AGGAGTCTC TCTAGGAGCA AATTGGGGC AATCCAGTGG GAAGAGGAGT GAAGACTGCA CTTGAGCTGC GTTTGGACAA CAGGCACACA ATCTTTACTT ACTTTTTCAGG CTGCTTTGAG GT </p>	Homo sapiens
461	152299 Interleukin-8 Receptor A	LG5459	<p> tccaccttgg ggtggtgaca agtgtgatca cctggttgggt gggtgtggtt gggtgtggtt gttctgtgct caggaatcat ctttactaaa tgccagaaa agattctgt ttatgtctgt ggccttatt ttccacgagg atggaataat ttccacacaa taatgaggaa ctttttgggg ctggtctctgc cgctgctcat catggtcatc gaggcatagg gcagtgcag tcatcttcac catcatgatt gtttactttc acgagaagaa gaggcatagg tccctataac attgtcattc tccgaacac ttccaggaa tttctggcc tgagtaactg tgaagcacc agtcaactgg accaaccac gcaggtgaca gagactcttg ggatgactca ctgtgcatc aatcccatca tctatgctt cgttggggag aagttcagaa ggtatctctc ggtgtcttc cgaagacaca tcaccaagcg cttctgcaaa caatgtccag ttttctacag ggagacagt gatggagtga cttcaacaaa cagccttcc actggggagc aggaagtctc ggctggttta taaaacgagg agcagttga ttgtgttta taaagggaga taacaactcg tatatacaa caaacttcaa ggtttgttg acaatagaa acctgtaaa caggtgcccc ggaacctcag ggtgtgtgt actaatagag actatgtcac ccaatgcata tccaaacatgt gctcagggaa taatccagaa aaactgtgg tagagacttt gactctccag aaagctcatc tcagctcctg aaaaatgcct cattaacttg tgctaactct ctttttctag tcttcataat ttcttcactc aatctctgat tctgtcaatg tcttgaaatc aagggccagc tgagagtgaa gaagagaatg tgacaggcac agatgagtg gagtgaggga tagtggggtc agggctgaga ggagaaggag ggagacatga gcatggctga gctgggacaa agacaaaggt gagcaaaagg ctacgcatt cagccaggag atgatactgg tccctagccc catctgccac gtgtatttaa ccttgaaggg ttaccagggt caggagagt ttgggaactg caataaacctg ggagttttgg tggagtcgga tgattctctt ttgcataagt gcataacata tttttgcttt attacagttt atctatggca ccatgcaac ttacattga aatctatgaa atatcatgct ccattgttca gatgcttctt aggccacatc cccctgtcta aaaattcaga aaattttgt ttataaaga tgcattatct atgatagct aatatatga tatgcaatat aaaatttag MLSTSRSRFI RNTNESGEEV TTFDDYDGA PCHKFDVKOI GAQLLPPLYS LVFIFGVGN P MLVLLILINC KKLKCLTDIY LLNLASDLL FLITLPLWAH SAANEWVFGN AMCKLFTGLY HIGYFGGIFV IILLIDRYL AIVHAVFALK ARTVTFGVVT SVITWLAVF ASVPGLIFTK COKEDSVYVC GPYFPRGWN FHTIMRNILG FFLSNCEST SQLDQATQVT ETILGMTHCCI AVRVFTIMI VYFLFWTPYN IVILNFTQE FFLSNCEST SQLDQATQVT ETILGMTHCCI NPIIYAFVGE KFRRYLSVFF RKHITKRFCK QCPVFYRETQV DGVSTNTTPS TGEQEVSAGL CAGAAATCCT CAGGTCCCAC AGAATGAAC ACCTTTTCTA AAATAAGTC AAGCCAAGCT A GTCCTACCCC AAAGAAAATC CTAGCAAGCA AAGGTGGCTT CCTTCTCTGAG GCCCCAGCCA GGTGTGTCCA ACCGTAGGAG CCACAGCTCA GAGATCAGAG TGACTTAACA GTTAGAGGGC ACTTGATGAG TAAGTGAA TAGGGAAACC AAGTCAGACG ACACCTCCCT TGTGAGTCCC AACCATGTCT ACATCTGGAG AAGAACAGT AAGTCAAGGG ATCAGAGCT GTGATTAGA GACTGCCAGG GTCCATATGA CCAAGCGGGT TGAAGCTGGG GTGAGGATC CATTATCTGA ATTTTCCACT CTATGGATGA TCACCTTTTAT TCTTTTCTCTT TTCTTGAATT TATTTCCATT TGTATTATCC TAAATTTCCCT GGTAGATCAC CTGTGAAAGC TTGCAACTGT CTGATAAGAA TAAAGGGGA AGGATTGAC TTACAGCAG AGACTTCAGA AGGAGTCTC TCTAGGAGCA AATTGGGGC AATCCAGTGG GAAGAGGAGT GAAGACTGCA CTTGAGCTGC GTTTGGACAA CAGGCACACA ATCTTTACTT ACTTTTTCAGG CTGCTTTGAG GT </p>	Homo sapiens

462	152299 Interleukin- 8 Receptor A	NM_000634	Homo sapiens
		agctgttaag tcaactctgat ctctgactgc agctcctact gttggacaca cctggccgggt A	
		gcttcagtta gatcaaacca ttgctgaaac tgaagaggac atgtcaata ttacagatcc	
		acagatgttg gattttgatg atctaaattt cactggcatg ccacctgcag atgaagatta	
		cagccctgtt atgctagaaa ctgagacact caacaagtat gttgtgatca tgccttatgc	
		cctagtgttc ctgctgagcc tgcctggaaa cctccctggt atgctggtca tcttatacag	
		caggttcggc cgctccgtca ctgatttcta cctgctgaac ctggcccttg ccgacctact	
		ctttgccctg acctgccc tctggggcgc ctccaagggt aatggctgga tttttggcac	
		attcctgtgc aaggtggtct cactcctgaa ggaagtcaac ttctacagt gcatcctgct	
		gttggcctgc atcagtgtgg accgttaoct ggccattgtc catgccacac gcacactgac	
		ccagaagcgt cacttggtea agtttgtttg tcttggctgc tggggactgt ctatgaatct	
		gtccctgcc tcttctctt tccgccaggc ttaccatcca acaattcca gtccagtttg	
		ctatgaggtc ctgggaaatg acacagcaaa atggcggatg gtgttgcgga tccctgctca	
		cacctttggc ttcatcgtgc cgctgtttgt catgctgttc tgctatggat tccacctgcg	
		tacactgttt aaggcccaca tggggcagaa gcaccgagcc atgagggtca tctttgctgt	
		cgctctcate ttctgcttt tctggctgct ctacaacctg gtctgctgg cagacacctt	
		catgaggacc caggtgaccc aggagagctg tgagcgcgc acaacatcg gccgggcccct	
		ggatgccact gagattctgg gatttctcca tagctgctc aacctatca tctacgcctt	
		catcgcccaa aattttcgcc atggattcct caagatcctg gctatgcatg gccgtggtcag	
		caaggagtgc ttggcacgtc atcgtgttac ctctacact tcttcgtctg tcaatgtctc	
		ttccaaacctc tgaaaacctc cgatgaagga atatctcttc tcagaaggaa agaataacca	
		acaccttgag gtgtgtgtg gaaggtgac tggctctgga caggcactat ctgggtttttg	
		gggggacgct ataggatgtg ggaagttag gaactggtg cttcaggggc cacaccaacc	
		ttctgaggag ctgttgaggt acctccagg accggccttt gcacctccat ggaacggaag	
		caccatcatt cccgttgaac gtacatctt taacctacta actgggtaat tagcatggcc	
		acatctgagc ccgaaatctg acattagatg agagaacagg ctggaagctg tgtctcctatg	
		agggctggat gctctcgttg acctcacag gagcatctcc tcaactctga gtgttaagcg	
		ttgagccacc aagctggtgg ctctgtgtgc tctgatccga gctcaggggg gtggttttcc	
		catctcaggt gtgttgcatg gtctgctgga gacattgagg caggcactgc caaacatca	
		acctgccagc tggcctgtg aggagctgga aacacatgtt cccctgggg gtggtggatg	
		aacaaagaga aagagggttt ggaagccaga tctatgccac aagaacccc ttaccoccca	
		tgaccaacat cgcagacaca tgtgtgtggc acctgctgag ccccaagtgg aacgagacaa	
		gcagccctta gcccttccc tctgcagctt ccaggctggc gtgcagcctc agcatcccta	
		gaaagccatg tgcagccacc agtccattgg gcaggcagat gttcctaata aagcttctgt	
		tccgtgcttg tccctgtgga agtatcttgg ttgtgacaga gtcaagggtg tgtgcagcat	
		tgttggctgt tccctgcagta gaatgggggc agcacctcct aagaaggcac ctctctgggt	
		tgaagggcag tgttccctgg ggctttaact cctgtagaa cagtctcttg aggcacagaa	
		actcctgttc atgccatac cctggcccaa ggaagatccc ttgtccaca agtaaaagga	
		aatcctctc caggagttct cagcttcacc ctgaggtgag catcatcttc tgggttaggc	
		cttgcctagg catagcctgc ctcaagctat gtgagctcac cagtcctcc ccaaatgctt	
		tccatgagtt gcagttttt cctagtctgt ttccctcct tggagaacag ggccctgtcg	
		gtttgttcaac tgtatgtcct tgggtgcctg agctactaa atgtcaata aataatgac	

463	152299 Interleukin-8 Receptor A	NP_000625.1	acaggaatga atgcatgctg aaaagaccac tctttt	MSNITDPQMW DFDDLFTGM PPADEYSPC MLETETLNKY VVIAAYALVF LLSLLGNSLV P	Homo sapiens
			MLVILYSRVG RSVTDVYLN LALADLLFAL TLPWAASKV NGWIFGTFLC KVSLLKEVN		
			FYSGILLIAC ISVDRIALV HATRTLQKR HLKFEVCLGC WGLSMNLSLP FFLFRQAYHP		
			NNSSPVCYEV LGNDTAKWRM VLRIPLHTFG FIVPLFVLMF CYGFTLRITLF KAHMGQKHRA		
			MRVIFAVVLI FLICWLPYNL VLLADTLMRT QVIOESCERR NNIGRALDAT EILGFLHSLC		
464	158822 Mas Proto-Oncogene	NM_002377	NPIIYAFIGQ NFRHGFLKIL AMHGLVSKEF LARHRTSYT SSSVNVSSNL	gaacccacga A	Homo sapiens
			cctgagggcct cctcatggat gggtcaaacg tgacatcatc tggttgttag	cccatcgtgc	
			acatctcaac tggcaggaaac gcctcagtcg ggaatgcaca tcggcaaatc ctcctctggt		
			actgggtcat tatgagcatc tccccagtcg ggtttgttga gaatgggatt ctctctatcg		
			tcctgtgctt ccgcatgaga agaaatccct tcactgtcta catcacccac ctgtctatcg		
			cagacatctc actgctcttc tgtattttca tctgtctat cgaactatgct ttagattatg		
			agctttcttc tggccattac tacacaattg tcacattatc agtgactttt ctgtttggct		
			acaacacggg cctctatctg ctgacggcca ttagtggga gagtgccctg tcagtccttc		
			acccatctg gtaccgatgc catcgcccca agtaccagtc ggcatttggtc tgtgcccttc		
			tgtgggctct ttcttgcttg gtgaccacca tggagtagtg catgtgcatc gacagagaag		
			aagagagtca ctctcggaat gactgccgag cagtcacatc cttatagcc atcctgagct		
			tcctggctct cagccccc atgctgggtg ccagcaccat ctgtgctgag aagatccgga		
			agaacacgtg ggttcccat tctccaaagc ttacatagat catcatggct accatcata		
			tattctcat ctctcgctat cccatgagac tcctttacct gctgtactat gagtattggt		
			cgaccttgg gaacctacac cacatttccc tgctctctc cacaatcaac agtagcgcca		
			acctttcat ttacttctt gtgggaagca gtaagaagaa gagattcaag gagtccctaa		
			aagttgttct gaccagggt tcaaaagatg aaatgcaacc tcggcgccag aaagacaatt		
			gtaatacggg cacagttgag actgtcgtct aagaactgtg agggaggtg tggataaaaa		
			tgggtgaaca caggtcattt ttagttgtg ctggaaat gacttaagta tctcctaaat		
			gtgatacaga agaacatctc atcccatatg catgagatc taattaatga tgaaa		
465	158822 Mas Proto-Oncogene	NP_002368.1	MRNPFVYI THLSIADISL RNASVGNHR QIPVHVIM SISPVGIVEN GILLWFLCFR P		Homo sapiens
			YLLTAISVER CLSVLYPIWY RCHRPKYQSA LVCALLWALS CLVTTMEYVM CIDREEESH		
			RNDCRAVIF IAILSFLVFT PLMLVSTIL VVKIRKNTWA SHSSKLYIVI MVTIIFLIF		
			AMPRLLYLL YYEYWTFTGN LHHISLLFST INSSANPFY FFGSSKKKR FKESLKVLT		
			RAFKDEMQPR RQKDNCTVT VETVV		
466	159152 G Protein-Coupled Receptor GPR43	NM_005306	atgctgcccgg actggaagag ctcttgatc ctcatggctt acatcatcat cttctcact A		Homo sapiens
			ggcctccctg ccaacctctt ggccctgagg gcctttgtgg ggcggatccg ccagccccag		
			cctgcaacctg tgcacatcct cctgctgagc ctgacgctgg ccgacctcct cctgctgctg		
			ctgctgccct tcaagatcat cgaggctgag tcgaacttcc gctggtaacct gcccaaggctc		
			gtctgcccc tcacgagttt tggcttctac agcagcatct actgcagcac gtggctcctg		
			gcgggcatca gcatcgagcg ctacctggga gtggctttcc ccgtgcagta caagctctcc		
			cgccggcctc tgtatggagt gattgcagct ctgggtggcct gggttatgtc ctttgggtcac		
			tgcaccatcg tgatcatcgt tcaatacttg aacacgactg agcagggtcag aagtggcaat		

467	159152 G Protein-Coupled Receptor GPR43	NP_005297.1	<p>gaaattacct gctacagagaa cttcaccgat aaccagttgg acgtgtgtgt gcccgtgcgg ctggagctgt gcctgtgtgt cttcttcac cccatggcag tcaccatctt ctgtactatg cgttttgtgt ggatcatgct ctcacagccc ttctgtgggg ccagagggc gcgccgagcc gtggggctgt ctgtgtgtac gctgtcaat ttctgtgtgt gcttcggacc ttacaacgtg tcccacctgg tgggtatca ccagagaaaa agccccctgt ggggtcaat agccgtgggtg ttcagttcac tcaacgccag cctggacccc ctgtctttct atttctctt ctcagttgtg cgcaggcat ttgggagagg gctgcaggtg ctgcggaatc agggctcttc cctgttggga cgcagaggca agacacagc agagggaca aatgaggaca ggggtgtgg tcaaggagaa gggatgcaa gttcggactt cactacagag tag</p>	<p>MTADLLLL P LTPKIIIEA SNFRWYLPKV VCAITSGFY SSIYCTWLL AGISIERYLG VAFPVQYKLS RRPLYGVIAA LVAWMSFGH CTIVIVQYL NTTEQVRSNG EITCYENFTD NQLDWLPLVR LELCIVLFFI PMAVTIFCYW FSSINSLDP LVGAQRARRA VGLAVVTLN FLVCFGPYNV SHLVGYHQRK SPWRSIAV FSSINSLDP LLFYFSSSVV RRAFGRGLQV LRNQGSSLLG RRKDTAEGT NEDRGVQGE GMPSSDTTE</p>	Homo sapiens
468	159973 Vasoactive Intestinal Polypeptide Receptor 1	NM_004624	<p>ggccacaggc cagcgccact ctgccaggct cccggccatc gcccgcctgg tgcgcccgc gccagctctt tgcccgcgcg ggccgcgcgc cccggggctc agggcagacc atgcgcccgc caagtccgtt gccgcgcgcg tggctatgag tgctggcagg cgccctgcgc tggcccttg ggccggcggg cggccaggcg gccaggctgc aggaggatgt tgactatgt cagatgatcg aggtgcagca caagcagtcg ctggaggagg cccagctgga gaatgagaca ataggctgca gcaagatgtg ggacaacctc acctgctggc cagccacccc tcggggccag gtagttgtct tggcctgtcc cctcatcttc aagctcttct cctccattca agccgccaat gtaagccgca gctgcaccga gaaaggctgg acgcacctgg agcctggccc gtaccccat gcctgtgtgt tggtatgaca ggacgagat ttggtatgag agcagaccat gttctacggt tctgtgaaga ccggtacac cattggctac ggcctgtccc tcgcccacct tctgtgcgc acagctatcc tgagcctgtt caggagctc cactgcacg ggaactacat ccacatgac ctctcatat ccttcacctt gagggctgc gctgtctca tcaaaagactt ggccctcttc gacagcgggg agtcggacca gtgctccgag ggctcggtgg gctgtaaggc agccatggc tttttccaat attgtgtcat ggtaacttc ttctggctgc tgggtgaggg cctctacctg tacacctgc ttgcgctctt cttctctctt gacgggaagt acttctgggg gtacatactc atcggtggg gggtacccag caccatcac atggtgtgga ccatcgccag gatccatttt gaggtattatg ggtgtgggga caccatcac tctcactgt ggtggatcat aaaggccccc atctcacct ccatcttgtt aaacttcac ctgtttattt gcatcatccg aatcctgctt cagaaactgc ggccccaga tatcaggaa gtagacagca gtccatactc aaggtagcc aggtccacac tctgtgtgat cccctgttt ggagtacact acatcatgtt cgccttctt cggacaatt ttaaagcctga agtgaagatg gtctttgagc tctttccag ggttttgtgg tggtatctct ctactgttc tcaatggtt aggtgcaggc ggaagtggc cggaagtggc ggcgtgggca cctgcagggc gtccctgggt ggaaccccaa ataccggac cgttcgggag gcagcaacgg cggcacgtgc agcacgcagg ttccatgtc gacccgctc agccaggtg cccgcgctc ctccagctc caagccgaag tctccctggt ctgaccacca ggatccaggg ggcccaaggc ggccctccc gcccttccc actcaccctg gcagacgag gggacagagg</p>	<p>MTADLLLL P LTPKIIIEA SNFRWYLPKV VCAITSGFY SSIYCTWLL AGISIERYLG VAFPVQYKLS RRPLYGVIAA LVAWMSFGH CTIVIVQYL NTTEQVRSNG EITCYENFTD NQLDWLPLVR LELCIVLFFI PMAVTIFCYW FSSINSLDP LVGAQRARRA VGLAVVTLN FLVCFGPYNV SHLVGYHQRK SPWRSIAV FSSINSLDP LLFYFSSSVV RRAFGRGLQV LRNQGSSLLG RRKDTAEGT NEDRGVQGE GMPSSDTTE</p>	Homo sapiens

Homo
sapiens

P

NP_004615.2

159973 Vasoactive
Intestinal
Polypeptide
Receptor 1

469

cctgccccgg cgggccagc cccggccctg ggctcggagg ctgcccccg cccctgggtc
 tctggtccgg aactcctag agaagcagc cctagagcct gcctggagcg tttctagcaa
 gtgagagaga tgggagctcc tctcctggag gattgcaggt ggaactcagt cctagagctc
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 tctgccccct gctggctctt ctgccaatt ttgaggaagc aacgggtgga tctcaaaaca
 aactggtgt gactgaggg cagaaaggtt ctgccccggg aaggtcacca gcaccaaac
 cagggtagt cctgaaaatt caccattgct gtcaagttcc ttgggttaa gcattaccac
 tcaggcattt gactgaagat gcagctcact accctattct ctctttacgc ttagttatca
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 cccacccgaa gtggactggc cctgggttca gtctgggtgg aggcaggtgc aacccaagga
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 ggactaagcc tactgtctct ccaagtctca gtggcttcat ctgtcaagtg ggtactgtca
 caccagccat acttatctct ctgtgctgtg gaagcaacag gaatcaagag ctgcccctct
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 tctctgtgtt tatttgttta ccaattgtat tattaatgcc attatcttga attccccctg
 ccaacccacc ctccctggcg tgtgctgag gaggcctcca tctcatgtat catctggata
 ggagcctgct ggtcacagcc tctctgtct gcccttacc ccagtgcca ctacagcttc
 taccacacc tctgccagaa gateccctca ggactgcaac aggttgtgc aacaataaat
 gttggcttgg a
 MRPSPLPAR WLCVLAGALA WALGPAGQA ARLOEEDYV QMIEVQHKQC LEEAQLNET
 IGCSKWDNL TCWPATPRGQ VVVLACPLIF KLFSSIQGRN VSRSCDEGW THLEPGPYPI
 ACGLDKAAS LDEQTMFYG SVKTGYTIGY GLSLATLLVA TAILSFRKL HCTRNIIHMH
 LFISFILRAA AVFIKDLALF DSGESDQSE GSVGCKAAMV FFQYCVMANF FWLLVEGLYL
 YTLAVSFFS ERKYFWGYIL IGWGPSTFT MWTIARIHF EDYGCWDTIN SSLWIIKGP
 ILTSILVNF IFCIIIRILL QKLRPPDIRK SDSSPYSRIA RSTLLIPLF GVHYIMEAFF
 PDNFKPEVKM VFELVGSFQ GFVAILYCF LNGEVQAEIR RKRRRWHLQG VLGWNPKYRH
 PSGSGNATC STQVSMLTRV SPGARRSSSF QAEVSLV
 cgggacgagg gggcggcccc cgcgctcggg gcgctcggct acagctgcgg ggcccagagt A
 ctccgcgcac tcgctcccg cccatgctgg aggcggcgga acccgggga cctaggacgg
 agcgcgcggg cgctggcggg ccccggcac gctgagctcg ggtgcggac gctgctgctt
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 aaggccattt ataccctggg ctacagtgct tctctgatgt ccttgcac aggaagcata
 attctgtgcc tcttcaggaa gctgcactgc accaggaatt acatccacct gaactgttc
 ctgtccttca tctgagagc catctcagtg ctggtcaagg acgacttct ctactcagg

Homo
sapiens

A

NM_003382

160040 Vasoactive
Intestinal
Polypeptide
Receptor 2

470

471	160040 Vasoactive Intestinal Polypeptide Receptor 2	NP_003373.1	<p>tctggcagct tgcactgcc tgaccagcca tctctctggg tgggctgcaa gctgagccctg gtcttctctg agtactgcat catggccaac ttcttctggc tgctgttgga ggggctctac ctccacaccc tctgtgtggc catgtctccc ctagaagggt gcttctctggc ctacctctg atcggtggg gcctcccac cgtctgcac cgtgcatgga ctgcgccag gctctactta gaagacaccg gttgctggga tacaacgac cacagtgtgc cctggtgggt catacgaata cggattttta ttccatcat cgtcaatttt gtcttttca ttagtattat acgaattttg ctgcagaagt taacatcccc agatgtcggc ggcaacgacc agtctcagta caagaggctg gccaagtcca cgctctctgt tatcccgctg ttcgcgctcc actacatggt gtttgccctg tttcccatca gcatctctc caaataccag atactgtttg agctgtgctt cgggtcgttc cagggcctgg tgggtggcct cctctactgt ttctgaaaca gtgaggtgca gtgcgagctg aagcgaatat ggcaagccg gtgcccacc cgtcccgca gccgggatta cagggtctgc ggttctctct ttcccaaaa cggctcggag ggccctctgc agttccaccg cgcgtccccg gcccagtcct tctgcaaac ggagacctcg gtcatctagc cccacccctg cctgtcggac gcggcgggag gccacgggt cggggcttct cgggggctga gacgcgggt tctctctcc agatgcccg gacccgtgtc gggcaggta cgcgggtcct gactccgta agctggtgtg ccactaaacc ccatacctg</p>	<p>LLRSQTEKHK ACSGVDNIT P KNCTSDGWE TFPDFVDACG YSDPEDESKI FRKLHCTRNY IHLNLFSLFI LRAISLVVKD YCIMANFFWL LVEGLYLHTL LVAMLPFRRC CWDNDHSVP WWVIRIPILI SIIVNFVLF LLIPLFGVH YMVFAVFPIS ISSKYQILFE RSDRPTSPAS RDYRVCGSSF SHNGSEGALQ</p>	Homo sapiens
472	160055 Motilin Receptor (GPR38)	NM_001507	<p>atgggacagc cctggaacgg cagcagcggc cccgaggggg cgcgggagcc gccgtggccc A ggctgccc cttgcgacga gcgcgctgc tcgccccttc ccctgggggc gctgggtgccg gtgaccgctg tgtgctgtg cctgttcgtc gtcggggtga gcggcaacgt ggtgaccgtg atgctgatcg ggcgctaccg ggacatgcgg accaccacca acttgtacct gggcagcatg gccgtgtccg acctactcat cctgtcggg ctagcgttgc accgtgacc cctctggcgc tcggggccct ggggtgtcgg gccgtgctc gcgcctcagc cctctacct gggcagggc tgcacctacg ccacgctgt gcacatgacc cgtcttggtc acccggcgcc gctcccgcc gctcctgct tgccgcccgc cccgcccgc cgtcttggtc ggttcccttc tgttccctggt gggcgtcgag gtgctctggg ccgtggcgtt agtcccgcc ctaaatggca ccgcgggat cgcctcctcg caggaacccc gcatctccgt agtcccgcc ctagcgtggt ttcagccgag cgcctcctcg cctctgcct cgtcgccgc tctctggtc tcgcgggcgc caccgccc cccgcccgtc gggcccaga ccgcgaggc cgcggcgctg ttccagccgc aatgcggcc gagecccgcc cagctgggag cgtgctgtg catgctgtg gtcaccacc cctactctt cctgcccctt ctgtgctca gcatcctca cgggctcgc gggcgggagc tgtggagcag ccggcggccg ctgcgagggc cggccgcctc gggcgggag agagccacc gccagaccgt ccgctcctg ctggtgggtg ttctggcatt tataattgc tgggtggcct tccacgttgg cagaatcatt tacataaaca cgggaagatt cgcgatgatg tacttctctc agtactttta catcgtcgt</p>	<p>IHPECRFHE IQEETKCTE NFYSKAGNIS KNCTSDGWE LATGSIILCL FRKLHCTRNY GCKLSLVFLQ YCIMANFFWL AARLYIEDTG CWDNDHSVP SOYKRLAKST LLIPLFGVH EVQCELKRW RSDRPTSPAS</p>	Homo sapiens

473 160055 Motilin Receptor (GPR38) NP_001498.1 Homo sapiens

ctgcaacttt tctatctgag cgcattatc aaccaatcc tctacaacct cattcaaaag
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cacagaagca gggacactgc gggggaagt gcaggagaca ctggaggaga cacggtgggc
tacacagaga caagcgctaa cgtgaagacg atgggataa
MGSPWNGSDG PEGAREPPWP ALPPCDERRC SPFPLGALVP VTAVCLCLFV VGVSNGVTV P
MLIGRYRDMR TTTNLYLGSF AVSDLLILG LPFDLYRLMR SREWVFGPLL CRLSLYVGE
CTYATLLHMT ALSVERYLAI CRPLRARVLV TRRRVRALIA VLMVAALLSA GPFLFLVGE
QDPGISVVG LINGTARIAS PLASSPPLWL SRAPPPSPS GPETAEEAAL FSRECRPSPA
QLGALRVMLW VTTAYFFLPF LCLSLYGLI GRELWSSRRP LRGPAAAGRE RGHROTIVRL
LVVVLAFIIC WLPFHVGRII YINTEDSRMM YFSQYFNIVA LQLFYLSASI NPILYNLISK
KYRAAFAKLL LARKSRPRGF HRSRDTAGEV AGDTGGDTVG YTETSANVKT MG

474 160059 G Protein-coupled Receptor GPR40 NM_005303 Homo sapiens

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ccgctcaacg tccctggccat ccgagggcgc acggcccaag cccggtctccg tctcaccct
agcctggctt acgcccgtga cctgggctgc tccgacctgc tgcgtgacagt ctcttgccc
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aggggtcctg gcctgaagac agtgtgtgag gcaagaacgc aaggggggcaa gtcccagaag
taa

475 160059 G Protein-coupled Receptor GPR40 NP_005294.1 Homo sapiens

MDLPPQLSFG LYVAAFALGF PLNVLAIRGA TAHARLRLTP SLVYALNLC SDLLITVSLP P
LKAVEALASG AWPLPASLCP VFVAHFFPL YAGGFLAAL SAGRYLGAFF PLGYQAFRRP
CYSWGVCAL WALVCHLGL VFGLEAPGGW LDHSNTSLGI NTPVNGSPVC LEAWDPASAG
PARFSLILL FFLPLAITAF CYVGLRALA RSLTHRRKL RAAWVAGGAL LTLILCVGPY
NASNVASFLY PNLGWSRKL GLITGAMSVV LNPLVTGYLG RGPGLKTVC AARTQGGKSQK
atgcacacccg tggctacgtc cggaccacac gcgtcctggg gggcaccggc caacgcctcc A
ggctgccccg gctgtggcgc caacgctcgc gacggccag tcccttcgcc gcgggcccgtg
gacgctggc tgcgtgcctt ctcttcgag ggcctgatgc tgcgtggcct ggtgggggaaac
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atcgccaacc tggcgccac ggacgtgacc ttcctcctgt gctgcgtcc cttcacggcc
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atccagcagg tctcggtgca ggcacgtgt gccacttga ccgccatgag tctggaccgc
tggtagctga cgggtgtccc gttgcggcc ctgcaccgcc gcacggccc cctggcgctg
gctgtcagcc tcagcatctg gtaggctct gcggcggtgt ctgcggccgt gctcgccctg

476 160189 G Protein-coupled Receptor GPR54 NM_032551 Homo sapiens

[illegible]

480 160202 Adrenomedull NP_009195.1 MSVKPSWGP PSEGVTAVPT SDLGEIHNWT ELLDLENHTL SECHVELSQS TKRVVLEFALY P
in Receptor
(ADMR) LAMFVVGIVE NLLVICVNRW GSGRAGLMNL YILNMAIDL GIVLSLPWM LEVTDYTWL
WGSFSCRFTH YFYFVNMYS IFFLVCLSDV RYVTLTSASP SWQRYQHRVR RAMCAGIWWL
SAIIPLEVV HIQIVEGPEP PKRRRHCLLL CAYVAVFVMC WLPYHVVTLL LTLHGTHISL HCHLVHLLYF
TACRLRQPGQ FCDVIDCFSM LHCVINPILY NELSHPFRGR LLNAVWHYLP KDQTKAGTCA SSSSCSTQHS
FYDVIDCFSM LHCVINPILY NELSHPFRGR LLNAVWHYLP KDQTKAGTCA SSSSCSTQHS

Homo
sapiens

481 160204 G Protein- AX136399
Coupled
Receptor RTA

Homo
sapiens

gtgctggctg ccctatcatg tgacctgctg gctgctcaca ctgcatggga ccacatctc
cctccactgc cacctggctc acctgctcta ctctctctat gatgtcattg actgtctctc
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tccaaatact tccccatct ctcaccacta gcctcttaca ccagctgag gta
160202 Adrenomedull NP_009195.1 MSVKPSWGP PSEGVTAVPT SDLGEIHNWT ELLDLENHTL SECHVELSQS TKRVVLEFALY P
in Receptor
(ADMR) LAMFVVGIVE NLLVICVNRW GSGRAGLMNL YILNMAIDL GIVLSLPWM LEVTDYTWL
WGSFSCRFTH YFYFVNMYS IFFLVCLSDV RYVTLTSASP SWQRYQHRVR RAMCAGIWWL
SAIIPLEVV HIQIVEGPEP PKRRRHCLLL CAYVAVFVMC WLPYHVVTLL LTLHGTHISL HCHLVHLLYF
TACRLRQPGQ FCDVIDCFSM LHCVINPILY NELSHPFRGR LLNAVWHYLP KDQTKAGTCA SSSSCSTQHS
FYDVIDCFSM LHCVINPILY NELSHPFRGR LLNAVWHYLP KDQTKAGTCA SSSSCSTQHS
IIITKDSQP AAAAPHPEPS LSFQAHLLP NTSPISPTQP LTPS
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tatttccaa gctcccgccg cgcgtcggc gctggcctgc tgcctcgccg ggtccgccc
ccggaggcgg ggtcacagg aagagccctc cacaagaagg gccctcgccg gatcaggaca
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482	160204	G Protein- Coupled Receptor RTA	CAC39840.1	<p> cagccctect tgactgtgtc ccagccagca ccaggccagc agcctcatcc ctgccaattca gggtgttcc agagattcga tctcttaag gcattatcag tgagcaaatg tgaaggaaat gggtgtcga agaaagtctt ggttcacatg cctttagact agtctttctt gcaacaacac tcccttccc ccgtcgagtc atttggtgac tttgatgggg ggatttctgg ttaattcaag gctctggaga caggaaggcc ctttgccgcg cttgggtagt tgacctgct tttctgactc cgggacgagc cagtcctagg ctgcctcgg gagcactga ggtatccgc aggccatgag gacctactgg gcagctctg gacagcctct tggctccag cccacccga aagtggacac tggctccgcc ctggccacct ggggactggc actgtggtgc acagtggccc aatgtggcca acggaagttt tataaagac aaaatgtata tcaataaaca ttttataact tgc MAGNCSWEAH PGNRNMCPG LSEAPELYSR GFLTIEQIAM LPPAVMNYI FLLCLCGLV P GNGLVLPFG FSIKRNPSI YFLHLASADV GYLFSKAVFS ILNTGGFLGT FADYIRSVCR VLGLCMELTG VSLLPAVSAE RCASVIFPAW YWRRRPKRLS AVCALLWVL SLLVTCLHNY FCVFLGRGAP GAACRHMDIF LGILLFLCC PLMVLPCLAL ILHVECRARR RQSAKLNHV ILAMVSVELV SSIYLGIDWF LFWVFOIPAP FPEYVTDLCI CINSSAKPIV YFLAGRDKSQ RLWEPLRVVF QRALRDGAEL GEAGGSTPNT VTMEMQCPPG NAS </p>	Homo sapiens
483	160206	G Protein- Coupled Receptor GPR32	NM_001506	<p> atgaatgggg tctcgaggg gaccagaggc tgcagtgaac ggcaacctgg ggtcctgaca A cgtgategct cttgttccag gaagatgaac tcttccggat gcctgtctga ggaggtgggg tccctccgcc cactgactgt ggttatccct tctgcgtcca ttgtcgtcgg agtctggggc aatgggtggg tgctgtggat gactgtcttc cgtatggcac gcacggtctc caccgtctgc ttcttccacc tggcccttgc cgatttcatg ctctcactgt ctctgcccc tgccatgtac tatattgtct ccaggcagtg gctcctcggg gactgggccc gcaaaactcta caccacctt gtgttctca gctacttgc cagtaactgc ctcttctct tcatctctgt ggaccgttgc atctctgtcc tctacccctg ctgggcccct aaccacgca ctgtgcagcg ggcgagctgg ctggccttgg gggtgtggt cctggccgcc gccttctgt ctgçgcacct gaaattccgg acaaccagaa aatggaaatgg ctgtacgcac tgctacttgg cgttcaactc tgacaatgag actgcccaga ttggattga aggggtcgtg gaggacaca ttataggac cattggccac ttcctgctgg gcttctcggg gcccttagca atcataggca cctgcgcca cctcatcgg gccaagctct tgcggagggg ctgggtccat gccaaccggc ccaagaggct gctgctggtg ctggtgagcg ctttctttat cttctggtcc cçgtttaaag tgggtctgtt ggtccatctg tggcgacggg tgatgctcaa ggaatctac caccgccga tçtçtçtcat cctccaggct agctttgctt tgggctgtgt caacagcagc ctcaacccct tctctactg cttcgttggc agagatttcc aagaaaagt ttctcagct tçgacttctg ccctggcgag ggcgtttgga gaggaggagt tctgtcatc ctgtcccccgt ggcaacgccc cccgggaatg a MNGVSETRG CSDRQPGVLT RDRSCSRKMN SSGCLSEEVG SLRPLTVVIL SASIVGVLG P NGLVWMTVF RMARTVSTVC FFHLALADEM LSLSLPIAMY YIVSRQWLLG EWACKLYTF VFLSYFASNC LLVFISVDRC ISVLVPVWAL NHRVQRASW LAFGWLLAA ALCSAHLKFR TTRKWNCGTH CYLAFNSDNE TAQIWIEGVV EGHIGTIGH FLLGFLGPLA IIGTCAHLIR AKLLREGWVH ANRPKRLLV LVSAFFIFWS PFNVVLLVHL WRRVMLKEIY HPRMLLIQA SFALGCVNSS INPFLYFVG RDFQEKFFQS LTSALARAFG EEEFLSSCPR GNAPRE cagcctccct cttccacctc tçtçtçgccc tçtçtçtçt tctagctgct gtcaggagct A gactgctcc agggctggaa tctçtçtçt cctçtçtçt cagagcccca cçatçtçtçt </p>	Homo sapiens
484	160206	G Protein- Coupled Receptor GPR32	NP_001497.1	<p> gagagatttcc aagaaaagt ttctcagct tçgacttctg ccctggcgag ggcgtttgga gaggaggagt tctgtcatc ctgtcccccgt ggcaacgccc cccgggaatg a MNGVSETRG CSDRQPGVLT RDRSCSRKMN SSGCLSEEVG SLRPLTVVIL SASIVGVLG P NGLVWMTVF RMARTVSTVC FFHLALADEM LSLSLPIAMY YIVSRQWLLG EWACKLYTF VFLSYFASNC LLVFISVDRC ISVLVPVWAL NHRVQRASW LAFGWLLAA ALCSAHLKFR TTRKWNCGTH CYLAFNSDNE TAQIWIEGVV EGHIGTIGH FLLGFLGPLA IIGTCAHLIR AKLLREGWVH ANRPKRLLV LVSAFFIFWS PFNVVLLVHL WRRVMLKEIY HPRMLLIQA SFALGCVNSS INPFLYFVG RDFQEKFFQS LTSALARAFG EEEFLSSCPR GNAPRE cagcctccct cttccacctc tçtçtçgccc tçtçtçtçt tctagctgct gtcaggagct A gactgctcc agggctggaa tctçtçtçt cctçtçtçt cagagcccca cçatçtçtçt </p>	Homo sapiens
485	160210	G Protein- Coupled	NM_004778	<p> gactgctcc agggctggaa tctçtçtçt cctçtçtçt cagagcccca cçatçtçtçt </p>	Homo sapiens

Receptor
GPR44
(CRTH2)

caacgccaca ctgaagccac tctgcccac cctggagcag atgagccgtc tccagagcca
cagcaaacac agcatccgct acatcgacca cgcggccgtg ctgctgcaag ggcctggcctc
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486	160210 G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	MSANATIKPL MRQTVVTTWV LLSAISLDRC MCYXNVLLIN PGRFVRLVAA PVLVLTCPD EPRGPAPLL atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	CPILEQMSRL LHLALSDLLA LQVVRPWAAQ PGPDRDATCN VVAAFALCWG MLRKLRRSLR GWLIGSCAAS ccaggtggac gtcactcctg cagtggttat cctttcattg catatgctga actccacagg taaaaagtgt ccaagcctct tgactctggat gtaccactgg ctggctttat ctggtcttta tccacatttt tccctagtca ccatggtttt actttcttct ggcttgacgt tccggctagg atcaggaagc acaagaacct atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	QSHSNTSIRY SASLPFFTYF NHRVTAAAHK SROAALAVSK PYHVSLEEA TVLESVLVDD PQTGPLNRAL tgaatggagg ccacttgga tgtgttgcg tgctccactg tcttttcgtg tgccccagg ttctatggca ttcctacaat ctactctgc tgactcttgc gtaccatttt tgatttgctg ctgttgcctt caaaatttgc tgaggtagat gtttaggata agaaagctcc agtaataagt cctccgaaga atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	IDHAAVLHGH LAVGHSWELG VCLVLMALAV FLAFLVPLA RAHANPGLRP LVWRGLPFVT SELGGAGSSR PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	LASLLGLVEN TFECKLHSSI LNTVPYFVER IIASSHAAVS LVRGLPFVT SLAFNSVAN RRRTSSTARS PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	GVLVGVGCR FEENMFASGF DTISRDLGRI LRQHRGRRR SLAFNSVAN ASPLALCSRP PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	Homo sapiens
487	160212 G Protein-Coupled Receptor GPR52	NM_005684	atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	QSHSNTSIRY SASLPFFTYF NHRVTAAAHK SROAALAVSK PYHVSLEEA TVLESVLVDD PQTGPLNRAL tgaatggagg ccacttgga tgtgttgcg tgctccactg tcttttcgtg tgccccagg ttctatggca ttcctacaat ctactctgc tgactcttgc gtaccatttt tgatttgctg ctgttgcctt caaaatttgc tgaggtagat gtttaggata agaaagctcc agtaataagt cctccgaaga atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	QSHSNTSIRY SASLPFFTYF NHRVTAAAHK SROAALAVSK PYHVSLEEA TVLESVLVDD PQTGPLNRAL tgaatggagg ccacttgga tgtgttgcg tgctccactg tcttttcgtg tgccccagg ttctatggca ttcctacaat ctactctgc tgactcttgc gtaccatttt tgatttgctg ctgttgcctt caaaatttgc tgaggtagat gtttaggata agaaagctcc agtaataagt cctccgaaga atgaatgaat gcgtccgagc atcttcgaga gttatcttgg cagacgatgg cttctccact atctcagttc cttgcaataa tgcattattt gggaaacctg gcctatttta ttcacctact agagcccgat cgtegtacg tatataattt ttaacaaact aacggcgttt tgtgtgaagg attga	IDHAAVLHGH LAVGHSWELG VCLVLMALAV FLAFLVPLA RAHANPGLRP LVWRGLPFVT SELGGAGSSR PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	LASLLGLVEN TFECKLHSSI LNTVPYFVER IIASSHAAVS LVRGLPFVT SLAFNSVAN RRRTSSTARS PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	GVLVGVGCR FEENMFASGF DTISRDLGRI LRQHRGRRR SLAFNSVAN ASPLALCSRP PQTGPLNRAL tgcctgaaca tttggccact acatttctga ttacatcatt ggagttagct tcattaaact tgctctgctt caactgggtca ctaatttctt gaatgggtg cttatgtctc ctttatgctc cggtcttgg tttggtaact ctgtttgaga aaacctagga aacgggctaa ttcttgctcc	Homo sapiens
488	160212 G Protein-Coupled Receptor GPR52	NP_005675.1	MNESRWTEWR VIFAFHCAPL ISVLKSVSMA GKPGYHGDIF RAREPSHEVD LTTWLAVSNS I	ILNMSSGIVN LHHYTTSYFI CLACISVDRI EWCATSWLTS SSRETGHSPD FCNCVIYSL I	ASERHSCPLG QTMAYADLFV LAITKPLSYN AYFTGFIVCL RRYAMVLFRI NGVFRGLRRL I	FGHYSVVDVC GVSCLVPTLS QLVTPCLRRI LYAPAAFWVC TSVFYMLWLP LFETMCTSCM I	IFETVIVILL LLHYSTGVHE CIILIIWISC FTYFHIFKIC YIIYFLLSS CVKDQEAQEP I	TFLLIAGNLT SLTCRVFGYI LFLPSPFFGW RQHTKEINDR RVLDNPTISF KPRKRANSCS I	Homo sapiens
489	160217 G Protein-Coupled Receptor	NM_005683	atgagtcagc accctacagt	aaaacaccag ttgcagctcca	tggggactgc catccccacc	ctggtttgacg ttcgtccttg	gtgtcaacga gcctgctcct	gctgatgaaa caacctgctg	Homo sapiens

Accession	Gene	Protein	Receptor	Sequence	Species
490	160217	G Protein-Coupled Receptor GPR55	Receptor GPR55	NP_005674.1 gcatccatg gcttcagcac cttccttaag aacaggtggc ccgattatgc tggcacctcc atctacatga tcaactgggc agtctttgac ctgtgtgctgg tgcctctccc cccattcaag atggtccgtg cccagggtaca gtcccccttc ccgtccctgt gcacctcgtt ggagtgcctt tacttcgtca gcatgtacgg aagcgtcttc accatctgct tcatcagcat ggaccggctc ttggccatcc gttaccgctt actggtgagc accccggtc cccaggag atctttggga tctgcatgca caatctgggt cctggtgtgg accggaagca tccctatcta cagtttccat gggaaagtgg aaaaatacat gtgcttccac aacatgtctg atgatacctg gagcgccaag gtcttcttc cgtggaggtt gtttggcttc ctcttccca tgggcatcat gggcttctgc tgctccagga gcatccacat cctgctgggc cgcgagacc acaccagga ctgggtgcag cagaaagcct gcatctacag catcgagcc agctgggctg tattcgtggt ctccttcttc ccagtcaccc tggggttctt cctgcagttc ctggtgagaa acagctttat cgtagagtgc agagccaaag agagcatcag cttcttcttg caattgtcca tgtgtttctc caatgtcaac tgctgcctgg atgttttctg ctactacttt gtcataaaag aattccgcat gaacatcagg gccaccggc cttccagggt ccagctggtc ctgcaggaca ccacgatctc ccggggctaa IYMINLAVDS LFDGVNELMK TLQFAVHIPT FVLGLLNL AIHGFSFLK NRPDYAATS P LAIRYPLLV HSGPGRSLG SACTIWLVLW TGSITPIYSFH GKVEKYMCFH NMSDDTWSAK VFFPLEVFGF LLPMGIMGFC CSRSIHILG RRDHTQDWVQ QKACIYSIAA SLAVFVVSFL PVHLGFFLQF LVRNSFIVEC RAKQSISSFEL QLSMCFSNVN CCLDVFCYYF VIKEFRMNIR AHRPSRVQLV LQDTTISR	Homo sapiens
491	160219	G Protein-Coupled Receptor GPR35	Receptor GPR35	NM_005301 atgaatggca cctacaacac ctgtggctcc agcgacctca cctggcccc agcgatcaag A ctgggcttct acgctactt gggcgctctg ctggtgctag gcctgtgct caacagcctg gcgctctggg tgttctgctg ccgcatgcag cagtggacgg agaccgcgat ctacatgacc aacctggcgg tggcgacct ctgcctgctg tgcaccttgc ccttcgtgct gcactccctg cgagacacct cagacacgcc cctgtgccag ctctccacgg gcatctacct gaccaacagg tacatgagca tcagcctggt cagggccatc cctgtggacc gctatgtggc cgtgcggcac ccgctgcgtg ccgcgggctt gcggtcccc aggcagctg cggccgtgtg cgcggtcctc tgggtgctgg tcatcgctc cctggtggt cgtggctcc tggggattca ggaaggcgcc ttctgcttca ggagaccgg gcacaatttc aactccatgc ggttcccgct gctgggattc tacctgcccc tggcgtggtt ggtcttctgc tccctgaagg tggtagctgc cctggcccag aggccaccca ccgacgtggg gcaggcagag gccaccgcga aggtgcccc catggtcttg gccaacctcc tgggttctgt ggtctgcttc ctgccccctg acgtggggtt gacagtgcgc ctgcgagtgg gctggaacgc ctgtgccctc ctggagacga tccgtcgccg cctgtacata accagcaagc tctcagatgc caactgctgc ctggagacca tctgctacta ctacatggcc aaggagtcc aggagcgctc tgcactggcc gtggctcccc gtgctaaggc ccacaaagc caggactctc tgtcgtgac cctcgccctaa	Homo sapiens
492	160219	G Protein-Coupled Receptor GPR35	Receptor GPR35	NP_005292.1 NLAVALDCLL CTLPFVLHSL RDTSDTFLCQ LSQGIYLTNR YMSISLVTAI AVDRVAVVRH P PLRARGLRSP ROAAVCAVL WVLVIGSLVA RWLLGIEGG FCFRSTRHNE NSMRPFLIGF YLPLAVVFC SLKVVTALAQ RPPTDVQAE ATRKAARMW ANLLVFVCF LPLHVGLTVR LAVGWNACAL LETIRALYI TSKLSDANCC LDAICYMYMA KEFQEAASALA VAPRAKAHKS	Homo sapiens

493	160221 G Protein-Coupled Receptor GPR27	NM_018971	QDSLCVTLA	<p>atggcgaaacg cgaagcagcc ggggtggcagc ggcggcgggcg aggcggcgccg cctggggccctc A</p> <p>aagctggcca cgctcagcct gctgctgtgc gtgagcctag cgggcaacgt gctgttcgcg</p> <p>ctgctgatcg tgcgggagcg cagcctgcac cgcgccccgt actacctgct gctcgacctg</p> <p>tgcctggccg acgggctcg cgcgctcgcc tgcctcccg cctcatgct ggcggcgcg</p> <p>cgtggcgcg cgcggcgcg ggcgcgcg ggcgcgctg gctgcaagct gctcgcttc</p> <p>ctggccgccc tctctgctt ccagcgcgc tctctgctc tggcgctgg cgtcacccgc</p> <p>tacctggcca tgcgcacca cgccttat gcagagcgc tggccggctg gccgtgccc</p> <p>gccatgctgg tgtgcgcgc ctgggcgctg gcgctggcg cgccttccc gccagtgtg</p> <p>gacggcggtg gcagacga gacgcgcg tgcgcctgg agcagcgcc cgcggcgcc</p> <p>ccggcgccg tgggttctt gctgctgct gctgtggtg tggcgccac gcacctgctc</p> <p>tacctcgcc tgccttctt catccagac cgcgcgaaga tgcggcccg gcgcctgtg</p> <p>ccgcgctca gccagactg gacctccac ggcggggcg ccaccggcca ggcggcgcc</p> <p>aactggacgg cgggcttcg cgcggggccc agcccgccc cgttgtggg catccggccc</p> <p>gcaggcgcg gccgcgcg cgcgcgcctc ctcgtgctg aagaattcaa gacggagaag</p> <p>aggctgtgca agatgttcta cgcgctcac ctgctcttc cgtctctg ggggcccctac</p> <p>gtcgtggcca gctacctgc ggtcctggt ggcggcgcg cctgccccca ggcctacctg</p> <p>acggcctccg tgtggctgac ctgcgcgag gccggcatca acccgtcgt gtgcttctc</p> <p>ttcaacaggg agctgagga ctgcttcag gccagttcc cctgctgcca gagccccgg</p> <p>accaccagg cgaccatcc ctgcgacctg aaaggcattg gttatga</p>	Homo sapiens
494	160221 G Protein-Coupled Receptor GPR27	NP_061844.1		<p>CLADGLRALA CLPAVLAAR RAAAAAGAPP GALGCKLLAF LAALFCFHA FLLEGVTR</p> <p>YLAIHHRFY AERLAGWPCA AMLVCAAWAL ALAAAPPVL DGGDDDEAP CALEQRPDGA</p> <p>PGALGFLLL AVVVGATHLV YLRLLFFIHD RRMRRPARLV PAVSHDWFH GPATGQAAA</p> <p>NWTAGFGRGP TTPALVGIRP AGPGRGARRL LVLEEFKTEK RLCKMFYAVT LLFLLWGPY</p> <p>VVASYLRLV RPAVPPQAYL TASVWLTFQA AGINPVVCFE ENRELDCFR AQFPCCQSPR</p> <p>TTQATHPCDL KGIGL</p>	Homo sapiens
495	160222 G Protein-Coupled Receptor GPR72	NM_016540		<p>atggtcctc acccttgtct gctctgtctc ctcccttgg tgcgagccac cgagccccac A</p> <p>gaggccggg ccgacgagca gagcgcgag ggcggcctgg ccgtgcccac tgcctcgcc</p> <p>ttctctctt ggaacaacta cacttctcc gactggcaga acttgttgg caggaggcg</p> <p>tacggcgctg agtccagaa cccacggtg aaagccctgc tcattgtggc ttactcttc</p> <p>atcattgtct tctcactctt tggcaacgct ctggtctgtc atgtcatctt caagaaccag</p> <p>cgaatgcact cggccaccag cctcttcac gtcaacctgg cagttgccga cataatgatc</p> <p>acgtgtctca acacccctt cactttggtt cgttttgtga acagcacat gatatttgg</p> <p>aaggcatgt gccatgtcag ccgcttggc cagtactgct cactgcactg ctacgactg</p> <p>acactgacag ccattgcgtt ggatcgccc caggtcatca tgcacctt tgaacccgg</p> <p>atctcaatca caaagggtgt catctacatc gctgtcatct ggaccttgc tacgttctt</p> <p>tactccac atgttatctg ccagaaatta ttaccttca aatacagtga ggacattgtg</p> <p>cgtccctct gcctgccaga ctccctgag ccagctgacc tctctggaa gtacctggac</p> <p>tggccaact tcactctgt ctacatctg cctctctca tcactctgt ggctacgt</p>	Homo sapiens

496	160222 G Protein- Coupled Receptor GPR72	NP_057624.1	<p>cggtgtggcca agaaactgtg gctgtgtaat atgattggcg atgtgaccac agagcagtac tttgccctgc ggcgcaaaaa gaagaagacc atcaagatgt tgatgtgggt ggtagtcctc tttgccctct gctggttccc cctcaactgc tacgtcctcc tctgtccag caagtcctc cgcaccaaca atgcccctcta ctttgccctc cactgggttg ccatgagcag cacctgctat aacccttcca tatactgctg gctgaacgag aacttcagga ttgagctaaa ggcattactg agcatgtgc aaagacctcc caagcctcag gaggacgggc aacctcccc agttccttcc ttcagggtgg cctggacaga gaagaatgat ggcagaggg ctcctctgc caataacctc ctgcccacct cccaaactcca gtctgggaag acagacctgt catctgtgga acccattgtg acgatgagtt agaagaggtt gggaaagagg agtgggagg gtctgtctcc acctgagga gggaaagaga gcctattctc acacatgac ttcagagtg caggaaacaca ctcctgcaga aggctgtagg actcttgaat tctaggaaa ctgtccagcc tctagcccc atgtgatgtg aaaactaaaa ggcaccacca actagacatg tgttcataaa ttcccatcta agaaacactg ggaggcacag cagcctgtat ctctgaggaa gaggagcggg gacaaacttg gccagatgg gggctgaatc attcaactgc ctccatctgt ggggcagctg ctgctctaca gcccttcccta ctagactgag catcccgaag gagacctaaa tcatacttg ggtgtgtga cccagatgca cagagctctg cttgaaaacag gtacacgggc cagggaatg ccagcaa</p>	Homo sapiens
497	160223 G Protein- Coupled Receptor G2A	NM_013345	<p>gagaggggtg cgaggctagc cagcagggcg gggccctggg tcatttttaa ctctcagagt A gaacgtcttg ataggaccga caagacgcat gacatgtact tagatagctt atcttagagc cacactgaga ttggaacccg caaaatatgc caggagaggaa ggtgagcgaag ggacacgaca ctcaccggga taaacccaac aagcgagcg aggtgtggg gaaacgggan ccttgcacac cgccggggga aggtgggcn cgcaccacac cgtggaagaa cagcgcggan gcaccccacg agatgagacg gaactgccgt gagatccagc aatnccnact gtgggtctga cccaggatan cggaaagcag ggaactgaac agccctctc atgttcttga caccgtcatt ctcagcagct cagctaaggc acagaggcag ccgagcgtct gtcagcagag tctgggctga gcagaacacg ccacacgcca cagccacac gccacacgtg caggattgct caagatggaa gggcacagtg gaatatatat atatatttat attttggcg agaccctgga ggacacactg aatacaatgg aataccatcc cgcctttgaa aggaaggga atctctggc acgtgcac agtagggagc ttgaggacac tgtggtgagt ggagcactg agacacggaa agacacacgc tgaagacacg cagagatgcc caccacgtg gggaggtgac aggggagccc agcgcacaga gacaaagtgg aatggaggcc tgggggctgg gagcaaatgc ggagcagtg cttcctgggg cagagctctc gtttgggaag atgagaaggt tctgcccagc gatgctggcg atggttgcag aagaatgtga atgtgcccac tgctactgaa aaacgggtac aatggaaaac ccacccagc gaccaccact gccccgtggg cctcctggg cctctccgcc aagacctgca acaacgtgtc cttcgaagag</p>	Homo sapiens

498	160223	G Protein-Coupled Receptor G2A	NP_037477.1	MCPLKNGY CLTAWLALQ IFFCNIYVSI EDKETCFDML KHSIAVWVI GVADPIIYVL RPVHPPGSPC	NGNATPVTTT VLOGNVLAIV LFLCCISCDR QMDSRIGAGY FLVCFAPYHL ATDHSRQEV PAKRLLIEESC	APWASLGLSA LLCLALCELL FVAIVYALE YARETVGFAL VLLVKAAAFS RIHKGWKEWS MKTDTVRLTH	KTCNNVSFEE YTGTPLWVI RGRRRRTAI PLSIIAFTNH YRGDRNAMC GLEERLYTAS SRDTEELQSP	SRIVLVVVS YIRNQHRWTL LISACIFILV RIFRSIKQSM GLSAAQKAKV VFLCLSTVN VALADHYTFS	AVCTLGVPAN	Homo sapiens
499	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	NM_004767	cggtgtacagg ctgtgtgcccc gggggtgccc tccaagagg tggcgaggagt gccaccagcc ggccaatctga	ggggcccaaga tggctgtctc ccctgcaact gcaccgagga acccccggcc ctaaccctga cagggggcacc	gctgggctgg tcttgctgtg gggcaggcac tgaggaggcc cattcacct caaggatggg agggcagagg	ctgtctcctg attttggctg agagccgaga aaggcgctgc gctggcctgc ggacccccag ctacagatcc	ctcatccagc tggggctaag cccaggagca agcagtatgt agcaaaccaa acagtgggca agaacccccct	catgcggtgg cagggtctct gcagagccga gcctgaggag gcccttgggtg ggaactgagg gtatcccggtg	Homo sapiens

agcaggatag tctgtgtcgt ggtgtacag cggtgtgtga cgctgggggt gctgggcaac
 tgctgactg cgtggctggc gctgtgcag gtactgcagg gcaactgtgt ggcgtcttac
 ctgctctgcc tggcactctg cgagctctg tacacaggca cgctgccact ctgggtcatc
 tatatccgca accagcacg ctggacccta ggcctgtgtg gctgcatctc ctggaccgc
 atctcttctt gcaacatcta cgtcagcatc ctcttctctg gctgcatctc ctggaccgc
 ttctgtggccg tgggtacgc gctggagagt cggggccgcc gccgcccag gaccgcatc
 ctcatctccg cctgcattct cactctctc gggatctgtt actaccgggt gtccagacg
 gaagacaagg agacctgctt tgacatgctg cagatggaca gcaggattgc cgggtactac
 tacgccagggt tcaccgttgg ctttgccatc cctctctcca tcatgcctt caccaccac
 cggattttca ggagcatcaa gcagagcatg ggcttaagcg ctgccagaa ggccaagggtg
 aagcactcgg ccatgcggt ggtgtctc ttctagtct gcttgcctt gtaccactg
 gttctctcgc tcaaacgcgc tgccttttcc tactacagag gcacatgtgc
 ggcttggagg aaaggctgta cacagctctt gtggtgttcc tgtgctgtc caggtgaac
 ggctgtgctg acccattat ctactgctg gccacggacc attcccgca agaatgtcc
 agaatccata aggggtggaa agagtgttcc atgaagacag acgtcaccag gctcaccac
 agcagggaca ccgaggagt gcagtgcctc gtggcccttg cagaccata cacttctcc
 aggccctgctg acccaccagg gtcaccatgc cctgcaaga ggctgattga ggagtctgctg
 tgagccact gtgtggcagg gggatggcag gtgggggttc ctggggccag caatgtggtt
 cctgtgact gagccacca gccacagtgc ccatgtcccc tctggaagac aaactaccaa
 tttctcgtc ctgaagccac tccctcctg accactggcc ccangcttcc ccacatggaa
 ggtggctgca tgccaagggg aagagcgaca cctcaggct tccgggagcc canagagcat
 gtggcangca gtggggcctc ttcacatca nctgctcct ctggctcctt tggctgtggg
 cangtacacc cctgtctgca gaagtacctg tggctgcccc tgttcgcatc agtggcgatg
 actttattg cggagcattt ctgcaagcgt tgcctggatg cgggtgtgca ttgtggcccc
 tctgggctcc tgcctcaaaa tgtcagttag caccatgctg gaagtacca tcaactgtgg
 agcggccagg aaggcatagg gcanccctacc acctccaang gggcangcgc cctcatctgg
 ggttgggt

500	160224 Endothelin Type B Receptor- Like Protein 2 (ETBR-LP- 2)	NP_004758.1	<p>accgagagct cctacagatgc ctatgccatc atgtcttctgg cgtggtggtg gtttgcggtg ggcattgtgg gcaacctgtc ggtcatgtgc atcgtgtggc acagctacta cctgaagagc gcctggaact ccaatccttg cagcctggcc ctctgggatt ttctggtcct ctttttctgc ctccctattg tcatcttcaa cgagatcacc aagcagaggg tactgggtga cgtttcttgt cgtgccgtgc ccttcattga ggtctcctct ctgggagtc aactttcag cctctgtgcc ctgggcatlg accgtttcca cgtggccacc agcacctgc ccaaggtgag gccatcagag cgggtgccaat ccatactggc caagttgggt gtcatctggg tgggtcccat gacgctggct gtgctgagc tctgtgtg gcagctggca caggagcctg ccccccaccat gggcacccctg gactcatgca tcatgaaacc ctacagccagc ctgcccaggt cctgtattc actggtgatg acctaccaga acgcccgcct gtggtggtac ttgggtgct acttctgct gccatcctc ttcacagtca cctgccagct ggtgacatgg cgggtgcgag gccctccagg gaggaagtca gagtgacagg ccagcaagca cagcagtggt gagagccagc tcaacagcac cgtggtgggc ctgaccgtgg tctacgctt ctgacacctc ccagagaacg tctgcaacat cgtggtggcc tacctctcca ccgagctgac ccgccagacc ctggacctcc tgggacctcat caaccagttc tccaccttct tcaaggggcg catcacccca gtgctgctc ttgtcatctg caggccgctg ggccaggcct tctgggactg ctgctgtgctg aggtgtgctg aggtgtgctg cggggtctcg gaggcctctg ctgccaatgg gtgggacaac aagctcaaga cagaggtgtc ctcttccatc tacttccaca agcccaggga gtacaccccca ctctgcccc tgggacacac ttgctgaggg ccagtagagg gtggggaggg agggagaggc cgccaccccc gccggtgtct gctgttcttt ccccataggt ctgtctttgt tgcctgtctt gctgtctagg gatggacttg gttcctcttg tcaaggtttg ggaatccc</p> <p>MRWLMPPLAVS LAVILAVGLS RVSGAPLHL GRHRAETQEQ QSRKRGTEDEEAKGVQQYV P PEEWAEPYRP IHPAGLQPTK PLVATSPNPD KDGTPDSGQ ELRGNLTGAP GQRLQIQNPL YPVTESSYSA YAIMLLALVV FAVGIVGNLS VMCIVHWSY LKSAWNSILA SLALWDFLVL FFCLPIVIFN EITKQRLGSD VSCRAVPFME VSSLGVTTF LALGIDREFH VATSTLPKVR PIERCQSILA KLAVIUVGSM TLAVPELLIW QLAQEPATM GTLDSICMKP SASLPESLYS LVMTYQNARM WMYFGCYFCL PILFTVTCOL VTWRVRGPPG RKSECRASKH EQCESQLNST VVGLTVVYAF CTLPENVCNI VVAYLSTELT RQTLDLLGLI NQSTFFKGA ITPVLLLCIC RPLGQAFLLDC CCCCCCECG GASEASAANG SDNKLKTEVS SSIYFHKPRE SPPLPLGTTP</p>	Homo sapiens
501	160225 Sphingolipid Receptor Edg6	NM_003775	<p>gagtcagccc ccggggggagg ccatgaacgc cagggggacc ccggtggccc ccgagtcctg A ccaacagctg gcggccggcg ggcacagccg gctcatgtt ctgcactaca accactcggg ccggctggcc ggccggggg ggcgggagga tggcgccctg gggccctgc gggggtgtc ggtggccgcc agctgcctg tgggtctgga gaactgtctg gtgctggcg ccataccag ccacatgcgg tcgcgacgt ggttctacta ttgctgtgtg aacatcacg tgagtgaact gctcacgggc gcggcctacc tggccaactg gctgctgtcg ggggccccga ccttccgtct ggcgcccgcc cagtgttcc tacgggaggg cctgtctctt accgcccctg ccgcccctac cttcagcctg ctcttactg caggggagcg ctttgcacc atggtgcggc cgggtggccga gagcggggcc accaagacca gcgcgtcta cggcttcatc ggcctctgct ggtgctggc cgcgctgctg gggatgctgc ctttgcctgg ctggaactgc ctgtgcgct ttgaccgctg ctccagcctt ctgccccctt actccaagcg ctacatcctc ttctgcctgg tgatcttgc</p>	Homo sapiens

502	160225	Sphingolipid NP_003766.1	Receptor Edg6	<p> cggcgctcctg gccaccatca tgggcctcta tggggcccatc tccgcctgg tgcaggccag cgggcagaag gcccacgccc cagcgcccg ccgcaaggcc cgcgcctgc tgaagacggt gctgatgac ctgctggcct tccgtgtgtg cctggggccc cctctgggc tgcgtctggc cgagctcttt ggctccaacc tctggggccc ggagtagctg cggggcatgg actggatcct ggccctggcc gtctcaact cggcggtcaa ccccatcatc tactcctcc gacgagggga ggtgtgcaga gccgtgctca gcttcctcg ggcggtgtg ctccggctgg gcatgcgagg gcccggggac tgctggccc ggccgctcga ggctcactcc ggagcttcca ccaccgacag ctctctgagg ccaagggaca gctttgcggg ctcccgctcg ctacgctttc ggatgcggga gcccctgtcc agcatctcca gctgcggag catctgaagt tgcagctctg cgtgtggatg gtgcagccac cgggtgcgtg ccaggcaggc cctcctgggg tacagggaagc tgtgtgcacg cagcctcgcc tgtatggga gcagggaacg ggacaggccc ccatggtctt ccgggtggcc tctcggggct tctgacgcca aatgggcttc ccatggtcac cctggacaag gagtaacca cccacctcc ccgtaggagc agagagcacc ctggtgtggg ggcgagtgtg tcccacaac ccgcctctg tgtgattctg gggaagtccc ggccctctc tgggcctcag taggctccc aggctgcaag ggtggactg tgggatgcat gccctggcaa cattgaagt cgtcatggt aaaaaa </p>	Homo sapiens
503	160228	T-Cell Death-Associated Gene 8 (GPR65)	NM_003608	<p> VLENLLVLA ITSHMRSRW VYCLVNITL SDLLTGAAYL ANVLLSGART FRLAPQMFL REGLLFTALA ASTFSLFTA GERFATMVRP VAESGATKTS RVYGFGLCW LLAALLGMLP LLGNCLCAF DRCSLLPLY SKRYILFCLV IFAGVLATIM GLYGAIFRLV QASGQKAPRP AARRKARLL KTVLMILLAF LVCWGPLFGL LLADVFGSNL WAQEXLRGMD WILALAVLNS AVNPIIYSFR SREVCRAVLS FLCGGLRLG MRGPGDCLAR AVEAHSGAST TDSSLRPRDS FRGSRSLSFR MREPLSSISS VRSI </p>	Homo sapiens
503	160228	T-Cell Death-Associated Gene 8 (GPR65)	NM_003608	<p> atgaacagca catgtattga agaacagcat gacctggatc actatttgtt tccatttgtt A tacatctttg tgattatagt cagcattcca gccaatattg gatctctgtg tgtgtctttc ctgcaaccca agaaggaaag tgaactagga atttacctct tcagtttgtc actatcagat ttactctatg cattaactct ccttttatgg attgattata cttggaataa agacaactgg actttctctc ctgccttgtg caaaggaggt gcttttctca tgtacatgaa gttttacagc agcacagcat tctcacctg cattgccgtt gatcggattt tggctgttgt ctacccttg aagttttttt tctaaggac aagaagaatt gcactcatgg tcagcctgtc catctggata ttggaaccca tcttcaatgc tgtcatgttg tgggaagatg aaacagttgt tgaatatg gatgccgaaa agtctaattt tactttatgc tatgacaaat accctttaga gaaatggcaa atcaacctca actgtttcag gacgtgtaca ggctatgcaa taccttttgt caccatcctg atctgtaacc ggaagtcta ccaagctgtg cggcacaata aagccacgga aaacaaggaa aagaagagaa tcataaaact actgtcagc atcacagtta ctttgtctt atgctttact ccctttcatg tgatgttgtc gattcgtgc attttagagc atgctgtgaa cttegaagac cacagcaatt ctgggaagcg aacttacaca atgtatgaa tcacggttgc attacaagt ttaaattgtg ttgctgaccc aattctgtac tgttttgtta cgaagaacagg aagatatgat atgtggaata tattaaaatt ctgcactggg aggtgtaata catcacaag acaaaagaaa cgcatacttt ctgtgtctac aaaagatact atggaattag aggtccttga gtag </p>	Homo sapiens

[illegible]

506	160300 Encephalopsi n	NP_055137.1	aaaaaa MYSGNRSGGH LVLVLYKFKQ GSLFGIVSIA LDVHGLGCTV IQVIKILKYE NTVYNPVIYV KKKVTFNSSS atgggcagct accaaaggaga gtcatctctt aacagcaagt ctggcaggcg acgcctgtgc ttcagccctc ggcagcgaca gtectcggtg actgtctctg atcctgttgg gctgacatgg gtctttatcg gtccactcct tccctgtcta cgcccgctgc ccggccacc cccacgtcac atgatctgct ggcattgtat gcccactgcg acagcaatgc aacctgacgc gagctgcccg gcactctttg gtcaccaca	GYWDGGGAG RLRTPHLLL VNISLSDLLV IRVHARVIN FSWAWRAITY SFLVFLFGC IFTFLVCWMP LQLLCLRLR LSVDDSDKTI gtactcggga cgctggaaac gttgcgccat tccactcggc tgcccttcgt agtggtttgc tgcccatcgc agagctgccc gcctgcccc ctctctacgc ccatcgtggc cgcccccgca tctgttggtt gcccgccttc ctacaaagcc ctacacgtcat agtgctggcg actcctctgc gaggggggtg actccgcagc ggagggcaac ccacgtttct gagcctctct gagcctctct tagcaaaactc ggggaaatgt agggcgctta gggagcagtt gacggcccaa gcaatgtctt tcttatctg	AEGPAPAGTL VNISLSDLLV IRVHARVIN FSWAWRAITY SFLVFLFGC IFTFLVCWMP LQLLCLRLR LSVDDSDKTI gtactcggga cgctggaaac gttgcgccat tccactcggc tgcccttcgt agtggtttgc tgcccatcgc agagctgccc gcctgcccc ctctctacgc ccatcgtggc cgcccccgca tctgttggtt gcccgccttc ctacaaagcc ctacacgtcat agtgctggcg actcctctgc gaggggggtg actccgcagc ggagggcaac ccacgtttct gagcctctct gagcctctct tagcaaaactc ggggaaatgt agggcgctta gggagcagtt gacggcccaa gcaatgtctt tcttatctg	SPAPLFSPGT SLFGVTFTFV FSWAWRAITY IWWPLGVIAH YIVICFLVWV CQRPADLPA GVQSLMLIQV ccccaaagg acctccgcgc aaccttcttg tttctgggca ttgctctctg tctgcctcca cacgtggcca ctcatcggtg aactgcccgg gtgctgtgcg cgaacttat cctgtacgtg gacgtagcc gcccccttc ctacaaagcc ctacacgtcat agtgctggcg gggttgcaag tccagctccc acggtggtct ga	YERLALLGS SCLRNWVWD IWLYSLAWAG CYGHILYSIR GHGLVTPTI AGSEMQRPI RPL tccaggaaca aggtggcctc tgctcattgc acctggccgc gctctgtcac tcacgctctc ttgccaaagt catctcggtg gccacctcga tggtgacct cggtggtccg cggtcaccat tcttgacta tgctgtctcc tcgccgtctc caccctgaat acctcgccg gacggaggcg tggagagggg catgcacatg	IGLLGVGNL TVGCVWDGFS APLLGNRYI MLRCVEDLQT SIVSYLFAKS VMSQKDGDRP A ctataattat ggccttcac ggtggcccg ctccgatcta gctgaggctg ggcctctgtc caagctgtat catctcggtg ggcctgtctc cttctccatc ctcaagccac cggtcaccat tcttgacta tgctgtctcc tcgccgtctc caccctgaat acctcgccg gacggaggcg tggagagggg catgcacatg	Homo sapiens
507	160312 Sphingolipid Receptor Edg5	NM_004230	atgggcagct accaaaggaga gtcatctctt aacagcaagt ctggcaggcg acgcctgtgc ttcagccctc ggcagcgaca gtectcggtg actgtctctg atcctgttgg gctgacatgg gtctttatcg gtccactcct tccctgtcta cgcccgctgc ccggccacc cccacgtcac atgatctgct ggcattgtat gcccactgcg acagcaatgc aacctgacgc gagctgcccg gcactctttg gtcaccaca	gtactcggga cgctggaaac gttgcgccat tccactcggc tgcccttcgt agtggtttgc tgcccatcgc agagctgccc gcctgcccc ctctctacgc ccatcgtggc cgcccccgca tctgttggtt gcccgccttc ctacaaagcc ctacacgtcat agtgctggcg actcctctgc gaggggggtg actccgcagc ggagggcaac ccacgtttct gagcctctct gagcctctct tagcaaaactc ggggaaatgt agggcgctta gggagcagtt gacggcccaa gcaatgtctt tcttatctg	gtactcggga cgctggaaac gttgcgccat tccactcggc tgcccttcgt agtggtttgc tgcccatcgc agagctgccc gcctgcccc ctctctacgc ccatcgtggc cgcccccgca tctgttggtt gcccgccttc ctacaaagcc ctacacgtcat agtgctggcg actcctctgc gaggggggtg actccgcagc ggagggcaac ccacgtttct gagcctctct gagcctctct tagcaaaactc ggggaaatgt agggcgctta gggagcagtt gacggcccaa gcaatgtctt tcttatctg	ccccaaagg acctccgcgc aaccttcttg tttctgggca ttgctctctg tctgcctcca cacgtggcca ctcatcggtg aactgcccgg gtgctgtgcg cgaacttat cctgtacgtg gacgtagcc gcccccttc ctacaaagcc ctacacgtcat agtgctggcg gggttgcaag tccagctccc acggtggtct ga	tccaggaaca aggtggcctc tgctcattgc acctggccgc gctctgtcac tcacgctctc ttgccaaagt catctcggtg gccacctcga tggtgacct cggtggtccg cggtcaccat tcttgacta tgctgtctcc tcgccgtctc caccctgaat acctcgccg gacggaggcg tggagagggg catgcacatg	ctataattat ggccttcac ggtggcccg ctccgatcta gctgaggctg ggcctctgtc caagctgtat catctcggtg ggcctgtctc cttctccatc ctcaagccac cggtcaccat tcttgacta tgctgtctcc tcgccgtctc caccctgaat acctcgccg gacggaggcg tggagagggg catgcacatg	Homo sapiens
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509	160314 G Protein- Coupled Receptor GPR103	AF411117	atgatctgct ggcattgtat gcccactgcg acagcaatgc aacctgacgc gagctgcccg gcactctttg gtcaccaca	gcagtgctct tagcaaaactc ggggaaatgt agggcgctta gggagcagtt gacggcccaa gcaatgtctt tcttatctg	atcactagac tagggcgctg cattaccocg cattacccgt catcgctctg gctggccctc ggtgttctac ctccttggtg	atcactagac tagggcgctg cattaccocg cattacccgt catcgctctg gctggccctc ggtgttctac ctccttggtg	tagcctgact ctacgttgtga cctgggagcgc gctggctgct ctacacccca cttcgcccctg catgcgaccc catgcgaccc cttcttctgc	tagcctgact ctacgttgtga cctgggagcgc gctggctgct ctacacccca cttcgcccctg catgcgaccc catgcgaccc cttcttctgc	Homo sapiens

Homo
sapiens

P

510 160314 G Protein- ENSMPRT2217
Coupled 53
Receptor
GPR103

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RVGDGSLVLT IHGKEMSKIA RKKKRAVIMM VTIVALFVAV WAPFHVHMM IEYSNFEKEY
DDVTIKMIFA IVQIIGFSNS ICNPIVYAFM NENFKKNVLS AVCYICVNKT FSPAQRHNS
GITMRRKKAK FSLRENPEE TKGEAFSDGN IEVKLCEQTE EKKKLKRHLA LFRSELAENS
PLDSG

Homo
sapiens

A

511 160317 Neuropeptide NM_004885
FF 2
Receptor

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513	160324	G Protein-Coupled Receptor	NM_023914	GPR86/GPR94/P2Y13	MNSFFGTPAA SWCLLESDVS SAPDKEAGRE RRALSVOORG GPWSGSLEW SRQSAGDRRR P LGLSRQTAKS SWSRSRDRTC CRRRAWIIV PAADRARRER FIMNEKWDN SENWHPIWN VNDTKHLLYS DINITYVNY LHQPQVAAIF IISYFLIFEL CMNGNTVVCF IVMRNKMHHT VTNLFILNLA ISDLLVGIFC MPITLLDNII AGWPFGNPMC KISGLVQGIS VAASVFTLVA IAVDRFQCVV YPFKPKLTIK TAFVIIMIIV VLAITIMSPS AVMLHVQEEK YVRVRLNSQN KTSFVYWCRE DWPNQEMRKI YTTVLEFANIY LAPLSLIVIM YGRIGISLFR AAVPHTGRKN QEWHVVS RK KOKIIMLLI VALLFILSWL PLWTMLMSD YADLSPNELQ IINIYIYFPA HWLAFGNSSV NPIIYGFNE NFRGFQEF QLQLCQKRAK PMEAYTLKAK SHVLINTSNQ LVQESTFQNP HGETLLYRKS AEKPQQLVM EELKETINSS EI aacagtatatt tctttttcaa cacatctatt gaaagtgttg gataaatgca ggatgttaat A atgctataaa cataagtctt gtttttaaaa aatagcattt gaaaaatcatg aagggccttt tgttttcttt tgtttgata tatgtttatt ggtaacaggt gacactggaa gcaatgaaca ccacagtgtat gcaaggcttc acagatctgt agcgggtgcc cagagacact cggatagtac agctggtatt cccagccctc tacacagtgg ttttcttgac cggcatcctg ctgaataactt tggctctgtg ggtgtttgtt cacatccca gctcctccac cttcatcatc tacctcaaaa acactttggt ggcgacttg ataatgacac tcatgcttcc tttcaaaatc ctctctgact cacacctggc acctggcag ctacagactt ttgtgtgttg ttttcttctg gtgatatattt atgagacctat gtatgtgggc atcgtgctgt tagggctcat agcctttgac agattcctca agatcatcag acctttgaga aatatatttc taaaaaaac tgtttttgca aaaaaggtct caatcttcat ctggttcttt ttgttcttca tctcctgcc aaatatgac ttgagcaaca aggaagcaac acctcgtct gtgaaaaagt gtgcttctt aaaggggcct ctggggctga aatggcatca aatggtaaat aacatatgcc agtttatttt ctggactgtt ttatccttaa tgcttggttt ttatgtgggt attgcaaaaa aagtataaga ttcttataga aagtcacaaa gtaaggacag aaaaaacac aaaaagctgg aaggcaagt atttgtgtc gtggtgtctt tctttgtgtg ttttgctcca tttcattttg ccagagttcc atatactcac agtcaaacca acaataagac tgactgtaga ctgcaaaatc aactgtttat tgctaaagaa acaactctct ttttggcagc aactaacatt tgtatggatc ccttaataata catattctta tgtaaaaaat tcacagaaaa gctaccatgt atgcaaggga gaaagaccac agcatcaagc caagaaaaatc atagcagtca gacagacaac ataaccttag gctgacaact gtacataggg ttaacttcta	Homo sapiens

514	160324	G. Protein- Coupled Receptor GPR86/GPR94/ P2Y13	NP_076403.1	<p> ttttattgatg agacttccgt agataatgtg gaaatcaaat ttaaccaaga aaaaaagatt ggaacaaatg ctctcttaca ttttattatc ctggtgtaca gaaaagatta tataaaattt aaatccacat agatctattc ataagctgaa tgaaccataa ctaagagaat gcaacaggat acaaatggcc actagaggtc attatttctt tctttctttt tttttttttt aatttcaaga gcatttcaat ttaacatttt ggaagaagact aaggagaaac gtatatccct acaaacctcc cctccaaaca ccttctcaca ttcttttcca caattcacat aacactactg cttttgtgcc ccttaaatgt agatatgtgc tgaagaaaaa aaaaaagcc caactcttga agtccattgc tgaaaactgc agccaggggt tgaaggggat gcagacttga agagtctgag gaactgaagt gggtcagcaa gacctgtgaa atcctgggta aggattttt tctttacaat tacaaaacagc ctctttcaca ttacaataat ataccatagg aggcacaagc accattatta agccactttg cttacacctt aagtgtgtac aattcaagtg tgagaatgct gtgttaacta ttctttggaa ttctccttct gtccagcaaa tactctaagt atggttaaac atggcaccta ctacagcaatg ccttcctgga ccacaacccc tatccctctg cccacccctc ctcattaaaa acaaatactt ctactgtttg ggtgtgtgat aggtttctca atgcagatct ccttttcta gttagctata ttcttgactg catccgctaa aatgtttaa gcttcttgag agacagacat gccagatttt cttggtatct ccataatgc gacctacagt ccatgttcta cagatgtttt aaatagaatt gctattctcg atacatacaa agacgtaatt gctgacccac aatcagtaac atccatattg ggagattttt caaaggatgg tgacctgct tgtatttatt taccttggtg ttttttcttg catccttctg tgattcaaaa aagttaaaatg tggctttctg aaatgatgga taagagtcta catcttctag aaaaaataca taaggagta gttaaagtct gtaaatgtgc cacgagctcc aacacgacca tcgtagggtg aagccacagt ttcttctcat ggcctcaag gccctagaac ttgcctacct ttctggcctt acctcctagc tacttatcca tctcttgaac tttatactct tgtataaatt tctaactttc agaaaatgcc atactctgtt ttggcaccac acatgtatat ttcccccctg tacacttggg agactcttat ccactctgtg aacctatgt tgtcatcact tgggtccatga aatattacct ggccaatc caccattcac ctcaaaccca atcacccct cctctgtatg ctgtcacacc tatattatta aacttatcac attgcatgtt aattacttcc tgacctttgt atctactct ttagtaactg atgtatatat ctgaaaggag agattgtttc attgtgcaat caataaatgt ttgataaaat aaagccc </p>	Homo sapiens
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520	160387 Glucagon- Like Peptide 2 Receptor	NP_004237.1	<p>ggagaagtga aggtgagct ggggaaatac tgggtccgct tctgttagc ccgcactca</p> <p>ggctcgagag cctgtgtcct ggggaaggac ttcgggttcc taggaaatg tccaagaag</p> <p>ctctcgaaag gagatggcg tgagaagctt cggaagctgc agccctact taacagtggg</p> <p>cggtcctac atctagccat gcgaggtctt ggggagctgg gcgcccagcc ccaacaggac</p> <p>catgcacgt ggcggcggg gcgagcctg tccgagtga gtgagggga tgteaccatg</p> <p>gccaacaca tggagagat tctggaagag agtgagatct ag</p> <p>MKLGSRAGP GRGSAGLLPG VHELPMGIPA PWGTSPLSFH RKCSLWAPGR PFTLVLLVS P</p> <p>IKQVTCGLLE ETRKWAQYK QACLRLDLEK PSQIFCNGTF DQYVCWPHSS PGNVSVPCPS</p> <p>YLPWSEESS GRAYRHCLAQ GTWQTENAT DIWDDSECS ENHSEKQNDV RYALLSTLQL</p> <p>MYTVGYSFSL ISLFLALTL LFLRLKLCR NYIHMNLFAS FILRTLAVLV KDVVFNYSYS</p> <p>KRPDNEGWM SYLSEMSTSC RSVQVLLHYF VGANYLWLLV EGLYLHLLLE PTVLPERRIM</p> <p>PRYLLGWAF PVLFPVWGF ARAHLENTGC WTNGNKKIM WIIRGPMMLC VTNFFIFLK</p> <p>ILKLLSKLK AHQCFRDYK YRLAKSTLV LPLLVGHEIL FSFITDDQVE GFALIRLFI</p> <p>QLTSSFHGF IVALQYGFAN GEVKAELRY WVRFLARHS GCRACVLGKD FRFLGKCPKK</p> <p>LSEGDGAELK RKLQPSLNSG RLLHLAMRGL GELGAQPQOD HARWPRGSSL SECSEGDVTM</p> <p>ANTMEEILEE SEI</p>	Homo sapiens
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522 160388 Latrophilin- NP_055736.1 1 MARLAALWN LCVTAVLVS ATQGLSRAGL PFGLMRRELA CEGYPIELRC PGSDVIMVEN P Homo sapiens

523 160390 Cadherin EGF NM_001408
LAG Seven-
Pass G-Type
Receptor 2
(CELSR2)

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				<p>GDQVGPCRSL GSRGRGSSGA CAPMGWLCPS P</p> <p>SASNLWLYTS RCRDAGTELT GHLVPHHDGL RWCPPESEAH IPLPPAPEGC PWSCRLLGIG</p> <p>GHLSPQGKLT LPEEHPClKA PRLRCQSKL AQAPGLRAGE RSPEESLGR RKRNVNTAPQ</p> <p>FQPPSYQATV PENQAPAGTPV ASLRAIDPDE GEAGRLEYTM DALFDSRSNQ FFSLDPVTGA</p> <p>VTTAEELDRE TKSTHVFRVT AQDHGMPRRS ALATLITLVT DTNDHDPVE QQEYKESLRE</p> <p>NLEVGVEVLT VRATGDAPP NANILYRLLE GSGGSPSEVF EIDPRSGVIR TRGPVDREEV</p> <p>ESYQLTVEAS DQGRDPGPRS TTAAVFLSVE DDNDNAPQFS EKRYVQVRE DVTGPAPVLR</p> <p>VTASDRDKGS NAVVHYSIMS GNARGQFYLD AQTGALDWVS PLDYETTKEY TLRVRAQDGG</p> <p>RPPLSNVSGL VTVQVLDIND NAPIFVSTPE QATVLESVPL GYLVLHVQAI DADAGDNARL</p> <p>EYRLAGVGHD FPFTINNGT WISVAEELDR EEVDYFSGV EARDHGTAL TASASVSTV</p> <p>LDVNDNNPTF TQPEYTVRLN EDAAVGTSVV TVSAVDRAH SVITYQITSG NTRNRFSTIS</p> <p>QSGGGLVSLA LPLDYKLERQ YVLAVTASDG TRQTAQIVV NVTDANTHRP VFQSSHYTVN</p> <p>VNEDRPAGTT VVLI SATDED TGENARITYF MEDSIPQFRI DADTGAVTTQ AELDYEDQVS</p> <p>YTLAITARDN GIPQKSDTTY LEILVNDVND NAPIQLRDSY QGSVYEDVPP FTSVLQISAT</p> <p>DRDSGLNGRV FYTFQGGDDG DGDFIVESTS GIVRTLRLRD RENVAQYVLR AYAVDKMPP</p> <p>ARTPMEVTVT VLDVNDNPPV FEQDEEDVFE EENSPIGLAV ARVTATDPDE GTNAQIMYQI</p>	

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525 160397 Latrophilin- NM_012302
2

Homo sapiens

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SEQ ID NO:	LSID	Gene	Source ID	LPID	Peptide	SpeciesName
692	127	5-HT1A Receptor	P08908	595	CAPASFERKNERNAEAKRKM	Homo sapiens
693	127	5-HT1A Receptor	P08908	608	GRIFRAARFRIKTVKKVE	Homo sapiens
694	127	5-HT1A Receptor	P08908	610	RTPEDRSDPDACTISK	Homo sapiens
695	127	5-HT1A Receptor	P08908	612	RHGASAPAPQPKSVNGE	Homo sapiens
696	128	5-HT1B Receptor	P28222	585	KQTPNRTGKRLTRAQLTID	Homo sapiens
697	128	5-HT1B Receptor	P28222	586	SPGSTSSVTSINSRVPD	Homo sapiens
698	128	5-HT1B Receptor	P28222	598	KVRVSDALLEKKKLMA	Homo sapiens
699	128	5-HT1B Receptor	P28222	599	ANLSSAPSQNCSAKD	Homo sapiens
700	129	5-HT1D Receptor	P28221	577	IKLADSALERKRISAA	Homo sapiens
701	129	5-HT1D Receptor	P28221	588	QEASNRSLNATETSEA	Homo sapiens
702	129	5-HT1D Receptor	P28221	589	RIYRAARNRILNPPSL	Homo sapiens
703	129	5-HT1D Receptor	P28221	590	KAQEEMSDCLVNTSQIS	Homo sapiens
704	130	5-HT1E Receptor	P28566	815	RHLSNRSTDQNSFASC	Homo sapiens
705	130	5-HT1E Receptor	P28566	817	CITEASMAIRPKTITEKM	Homo sapiens
706	130	5-HT1E Receptor	P28566	818	DNDLDHPGERQQISST	Homo sapiens
707	130	5-HT1E Receptor	P28566	2738	CVSDFSSTDPTTEFEK	Homo sapiens
708	130	5-HT1E Receptor	P28566	2739	RIYHAAKSLYQKRGSSR	Homo sapiens
709	131	5-HT1F Receptor	P30939	604	ESGEKSTKSVTSYVL	Homo sapiens
710	131	5-HT1F Receptor	P30939	606	DKCKISEEMSNFLAWLG	Homo sapiens
711	131	5-HT1F Receptor	P30939	864	IAKEEVNGQVLESGE	Homo sapiens
712	131	5-HT1F Receptor	P30939	869	STVRSLSREFKHEKSWR	Homo sapiens
713	132	5-HT2A Receptor	CAA01675.1	1106	DAFNWTVDSERNINLSC	Homo sapiens
714	132	5-HT2A Receptor	CAA01675.1	1107	FGQQDDSKVFKEGSC	Homo sapiens
715	132	5-HT2A Receptor	CAA01675.1	1108	PGSYTGRRITMQSISNEQKAC	Homo sapiens
716	132	5-HT2A Receptor	CAA01675.1	1109	CSMVALGKQHSEEAASKDNSD	Homo sapiens
717	132	5-HT2A Receptor	CAA01675.1	1110	NTIPALAYKSSQLQMGQ	Homo sapiens
718	133	5-HT2B Receptor	P41595	1111	KGIETDVDPNNITC	Homo sapiens
719	133	5-HT2B Receptor	P41595	1112	CSSPEKVAMLDGSRKDKA	Homo sapiens
720	133	5-HT2B Receptor	P41595	1113	RRSTIGKKSVQITISNE	Homo sapiens
721	133	5-HT2B Receptor	P41595	1114	CNYRATKSVKTLRKRSK	Homo sapiens
722	133	5-HT2B Receptor	P41595	1187	SGLQTESIPEEMKQIVEEQG	Homo sapiens
723	134	5-HT2C Receptor	P28335	1115	CKRNTAEFEENSANPNQDQNA	Homo sapiens
724	134	5-HT2C Receptor	P28335	1116	GHTEEPPLGLSLDFLKC	Homo sapiens
725	134	5-HT2C Receptor	P28335	1117	CNYKVEKKPPVRQIPRV	Homo sapiens
726	134	5-HT2C Receptor	P28335	1118	IGLRDEEKVFNNTTC	Homo sapiens

727	134	5-HT2C Receptor	P28335	1119	RHTNEPVIEKASDNEP	Homo sapiens
728	134	5-HT2C Receptor	NP_000859.1	1826	RNAVHSLVHLGLLVWQCD	Homo sapiens
729	134	5-HT2C Receptor	NP_000859.1	1829	CDISVSPVAIVTDIFNTSD	Homo sapiens
730	134	5-HT2C Receptor	NP_000859.1	1830	DGGRFKFPDGVQNWPAALS	Homo sapiens
731	136	5-HT4 Receptor	CAA73107.1	654	NNIGIDUEKRFKNQ	Homo sapiens
732	136	5-HT4 Receptor	CAA73107.1	655	ESRPQADQHSRMR	Homo sapiens
733	136	5-HT4 Receptor	CAA73107.1	656	CDDERYRRPSILGQTV	Homo sapiens
734	136	5-HT4 Receptor	CAA73107.1	657	RDAVECGGQWESQCHPPATS	Homo sapiens
735	136	5-HT4 Receptor	CAA73107.1	2682	VTAKEHAHQIQLQAGASSESRP	Homo sapiens
736	136	5-HT4 Receptor	CAA73107.1	2683	KSFRAFLILCCDDE	Homo sapiens
737	136	5-HT4 Receptor	CAA73107.1	2684	VTAKEHAHQIQLQAGA	Homo sapiens
738	136	5-HT4 Receptor	CAA73107.1	2685	KEHAHQIQLQAGA	Homo sapiens
739	136	5-HT4 Receptor	CAA73107.1	2686	VTAKEHAHQIQLQR	Homo sapiens
740	138	5-HT6 Receptor	P50406	649	RTPRPGVESADSRRLATK	Homo sapiens
741	138	5-HT6 Receptor	P50406	650	CPRERQASLASPSLRIS	Homo sapiens
742	138	5-HT6 Receptor	P50406	652	PLFMIRDFKRALGRFLPC	Homo sapiens
743	138	5-HT6 Receptor	P50406	653	RAAAAVNFFNIDPAEPE	Homo sapiens
744	139	5-HT7 Receptor	P34969	658	EVTASPTWDAPPDNASGC	Homo sapiens
745	139	5-HT7 Receptor	P34969	659	KAARKSAAKHKFPGFRVE	Homo sapiens
746	139	5-HT7 Receptor	P34969	660	CANLSRLKHERKNISIFKR	Homo sapiens
747	139	5-HT7 Receptor	P34969	663	KLAERPERPEFVLRAC	Homo sapiens
748	272	Adenosine A1 Receptor	AA17544.1	8	CHKPSILTYIAFLT	Homo sapiens
749	272	Adenosine A1 Receptor	AA17544.1	9	NGSMGEPVIKCEFEKVISMIE	Homo sapiens
750	272	Adenosine A1 Receptor	AA17544.1	10	NKKVSASSGDPQKYGKELK	Homo sapiens
751	272	Adenosine A1 Receptor	AA17544.1	11	NDHFCRCQAPPIDEDLPEER	Homo sapiens
752	272	Adenosine A1 Receptor	P25099	286	CQKPPIDEDLPEEKAE	Rattus norvegicus
753	272	Adenosine A1 Receptor	P25099	302	QKPPIDEDLPEEKAE	Rattus norvegicus
754	272	Adenosine A1 Receptor	AA17544.1	303	MPPSISAFQAAYIGIEVL	Homo sapiens
755	273	Adenosine A2a Receptor	P29274	1237	QGNGLPDPVELLSHELKVC	Homo sapiens
756	273	Adenosine A2a Receptor	P29274	1238	MPIMGSSVITVELAIA	Homo sapiens
757	273	Adenosine A2a Receptor	P29274	1239	RSHVLRQEQEPFKAAGT	Homo sapiens
758	273	Adenosine A2a Receptor	P11617	1240	RIRFRQIFRKIRSH	Canis familiaris
759	274	Adenosine A2b Receptor	P29275	676	KDSATNNCTEPWDGTTNES	Homo sapiens
760	274	Adenosine A2b Receptor	P29275	677	CRQLQRTLMDSRRTLQRE	Homo sapiens
761	274	Adenosine A2b Receptor	P29275	678	RNRDRFYTFHKISRYLLC	Homo sapiens
762	274	Adenosine A2b Receptor	P29275	679	CQADVKSNGGQAGVQP	Homo sapiens

763	274	Adenosine A2b Receptor	P29275	680	CVTLFQPAQGKNKPKW	Homo sapiens
764	274	Adenosine A2b Receptor	P29275	2714	MILETQDALVVALELVIAAL	Homo sapiens
765	275	Adenosine A3 Receptor	P33765	683	IFYIRNKLNLNSNSKE	Homo sapiens
766	275	Adenosine A3 Receptor	P33765	686	NMKLTSEYHRNVTLSC	Homo sapiens
767	275	Adenosine A3 Receptor	P33765	687	AYKIKKFETYLLILKAC	Homo sapiens
768	275	Adenosine A3 Receptor	P33765	689	TGAFVGREFTAKSLF	Homo sapiens
769	275	Adenosine A3 Receptor	P33765	2296	KRVTHRRRIWLALGLC	Homo sapiens
770	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	4	CPRVVLPEEIFFTIS	Homo sapiens
771	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	5	MGYLKPRGSFETIADDIIDS	Homo sapiens
772	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	6	RYHSIVTMRRRTVVLT	Homo sapiens
773	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	CAA46587.1	7	AFRSPELRDAFKKMIFC	Homo sapiens
774	376	Alpha 1d-adrenoceptor	AAA35496.1	12	RSTIRSLAAGVKRERKASE	Homo sapiens
775	376	Alpha 1d-adrenoceptor	AAA35496.1	13	KEPVPPDERFCGITEEAG	Homo sapiens
776	376	Alpha 1d-adrenoceptor	AAA35496.1	14	RSTEMVQRLRMEAVG	Homo sapiens
777	376	Alpha 1d-adrenoceptor	AAA35496.1	15	PRPSCAPIKSPACRTIRSP	Homo sapiens
778	377	Alpha 1b-adrenoceptor	P35368	696	KEMSNKELTLRIHSK	Homo sapiens
779	377	Alpha 1b-adrenoceptor	P35368	697	GGSLERSQSRKDSLDGSGC	Homo sapiens
780	377	Alpha 1b-adrenoceptor	P35368	698	APEPPGRRGRHDSGPL	Homo sapiens
781	377	Alpha 1b-adrenoceptor	P35368	699	KLLTEPESPGTDGGASNGGC	Homo sapiens
782	379	Alpha 1c-adrenoceptor	AAA93114.1	1245	GSGMASAKTKTHFSVR	Homo sapiens
783	379	Alpha 1c-adrenoceptor	AAA93114.1	1246	RIPVGSRETFYRISKTDGVC	Homo sapiens
784	379	Alpha 1c-adrenoceptor	AAA93114.1	1247	SSMPRG SARITVSKDQSSC	Homo sapiens
785	379	Alpha 1c-adrenoceptor	AAA93114.1	1248	ESRGLKSGLKTDKSDS	Homo sapiens
786	387	Alpha 2a-adrenoceptor	P08913	1343	ERRPNGLGPERSAGPG	Homo sapiens
787	387	Alpha 2a-adrenoceptor	P08913	1344	PGEAPAGPRDIDALD	Homo sapiens
788	387	Alpha 2a-adrenoceptor	P08913	1345	RGPRGKGKARASQVKPGD	Homo sapiens
789	387	Alpha 2a-adrenoceptor	P08913	1346	RGPGATGIGTPAAGPGE	Homo sapiens
790	387	Alpha 2a-adrenoceptor	P08913	1347	RVGAAKASRWGRGNRE	Homo sapiens
791	388	Alpha 2b-adrenoceptor	P18089	1348	IKGDQGPQPRGRPQC	Homo sapiens

792	388	Alpha 2b-adrenoceptor	P18089	1349	RSNRRGPRAKGGPGQGE	Homo sapiens
793	388	Alpha 2b-adrenoceptor	P18089	1350	ASAREVNGHSHKSTGEK	Homo sapiens
794	388	Alpha 2b-adrenoceptor	P18089	1351	RGVGAIGGGQWRRRAH	Homo sapiens
795	389	Alpha 2c-adrenoceptor	P18825	1352	RAPVGPDGGASPTENG	Homo sapiens
796	389	Alpha 2c-adrenoceptor	P18825	1353	RTGTARPPPTWSRTR	Homo sapiens
797	389	Alpha 2c-adrenoceptor	P18825	1354	ASRSPGPGGRLSRASS	Homo sapiens
798	389	Alpha 2c-adrenoceptor	P18825	1355	RSVEFFLSRRRRARSVC	Homo sapiens
799	599	Bradykinin B1 Receptor	P46663	798	PMASGRQRRRQARVTC	Homo sapiens
800	599	Bradykinin B1 Receptor	P46663	799	NYHILASLRTRREEVSR	Homo sapiens
801	599	Bradykinin B1 Receptor	P46663	800	RVRGPKDSKTTALIT	Homo sapiens
802	599	Bradykinin B1 Receptor	P46663	801	VGRLERTKVWELYKQC	Homo sapiens
803	600	Bradykinin B2 Receptor	AAB02793.1	794	FRIMKEYSDEGHNVAC	Homo sapiens
804	600	Bradykinin B2 Receptor	AAB02793.1	795	CTMQIMQVLRNNEMQKFKE	Homo sapiens
805	600	Bradykinin B2 Receptor	AAB02793.1	796	CQDERIIDVTQIASFM	Homo sapiens
806	600	Bradykinin B2 Receptor	AAB02793.1	797	CRSEPIQMENSMTGLRTS	Homo sapiens
807	635	Beta-1 adrenoceptor	AAA51667.1	1357	RVFREAGQKQVKKIDSC	Homo sapiens
808	635	Beta-1 adrenoceptor	AAA51667.1	1358	CERRFLGGPARPPSPS	Homo sapiens
809	635	Beta-1 adrenoceptor	AAA51667.1	1359	ANGRAGKRPSRLVALRE	Homo sapiens
810	635	Beta-1 adrenoceptor	AAA51667.1	1360	CARRAARRRHATHGDRPRAS	Homo sapiens
811	635	Beta-1 adrenoceptor	AAA51667.1	1361	CLARPGPPSPGAASD	Homo sapiens
812	635	Beta-1 adrenoceptor	AAA51667.1	1362	CNGGAAADSSSILDEP	Homo sapiens
813	640	Beta-2 adrenoceptor	NP_000015.1	2654	KRQLQKIDKSEGRFHV	Homo sapiens
814	640	Beta-2 adrenoceptor	NP_000015.1	2656	GEQSGYHVEQEKENKLLC	Homo sapiens
815	640	Beta-2 adrenoceptor	NP_000015.1	2662	APNRSHAPDHDVTQQR	Homo sapiens
816	640	Beta-2 adrenoceptor	NP_000015.1	2663	VPLVMVFVYSRVFQE	Homo sapiens
817	643	Beta-3 adrenoceptor	P13945	1390	RGELGRFPPEESPAP	Homo sapiens
818	643	Beta-3 adrenoceptor	P13945	1391	SRS LAPAPVGTCAPE	Homo sapiens
819	643	Beta-3 adrenoceptor	P13945	1392	GVPACGRPARILLPRE	Homo sapiens
820	643	Beta-3 adrenoceptor	P13945	1393	PSGVPAAARSSPAQPLRC	Homo sapiens
821	688	Opsin, blue-sensitive	NP_001699.1	1753	EEEFYLFKNISSVGPWDGPQ	Homo sapiens
822	688	Opsin, blue-sensitive	NP_001699.1	1754	CGPDWYTVGTYRSESYT	Homo sapiens
823	688	Opsin, blue-sensitive	NP_001699.1	1755	NNRNHGLDLRLVTIPS	Homo sapiens
824	688	Opsin, blue-sensitive	NP_001699.1	1756	IMKMVCGKAMTDESIT	Homo sapiens
825	692	Bombesin Receptor	AAA35604.1	20	SITNDTESSSSVVSNDNTNK	Homo sapiens
		Subtype-3				
		Bombesin Receptor	AAA35604.1	21	KAVVKPLERQPSNAILKTC	Homo sapiens
826	692	Subtype-3				

827	692	Bombesin Receptor Subtype-3	AAA35604.1	22	RDPNKNMTFESCSTSPVSKK	Homo sapiens
828	692	Bombesin Receptor Subtype-3	AAA35604.1	23	RTLYKSTLNIPTEEQSHARK	Homo sapiens
829	692	Bombesin Receptor Subtype-3	AAA35604.1	24	KSFQKHFKAKQLFCCKAERPE	Homo sapiens
830	692	Bombesin Receptor Subtype-3	NP_001718.1	2286	NKGWSGDNSPGIEALC	Homo sapiens
831	692	Bombesin Receptor Subtype-3	NP_001718.1	2287	QRQPHSPNQTLISITNDE	Homo sapiens
832	692	Bombesin Receptor Subtype-3	NP_001718.1	2288	RPEPPVADTSLTTLAV	Homo sapiens
833	692	Bombesin Receptor Subtype-3	NP_001718.1	2289	SEISVTSFTGCSVKQAE DR	Homo sapiens
834	729	CXC Chemokine Receptor 5	P32302	1382	ELDRLDNVDNDSLVENHLC	Homo sapiens
835	729	CXC Chemokine Receptor 5	P32302	1383	SQGHNNLSLPRCTFSQE	Homo sapiens
836	729	CXC Chemokine Receptor 5	P32302	1384	CYGVVHRLRQAQRPP	Homo sapiens
837	729	CXC Chemokine Receptor 5	P32302	1385	CQLFPSWRRSSISENA	Homo sapiens
838	735	C-C Chemokine Receptor 1	P32246	305	TEDYDTTEFDYGDATPC	Homo sapiens
839	735	C-C Chemokine Receptor 1	P32246	1242	ASMPGLYFSKTQWEFTHTC	Homo sapiens
840	735	C-C Chemokine Receptor 1	P32246	1243	CSLHFPHESLREWKLFQA	Homo sapiens
841	735	C-C Chemokine Receptor 1	P32246	1244	TILSVFQDFLTHEC	Homo sapiens
842	737	C-C Chemokine Receptor 3	P51677	1386	CSALYPEDTVYSWRHF	Homo sapiens
843	737	C-C Chemokine Receptor 3	P51677	1387	PEFIVETEELFEETLC	Homo sapiens
844	737	C-C Chemokine Receptor 3	P51677	1388	SSYQSILFGNDCERSK	Homo sapiens
845	737	C-C Chemokine Receptor 3	P51677	1389	GRYIPFLPSEKLETS	Homo sapiens
846	737	C-C Chemokine Receptor 3	P51677	1751	DDVGLLCEKADTRALMAQFV	Homo sapiens
847	738	C-C Chemokine Receptor 4	P51680	306	MNATEVDTTQDET VNSY	Mus musculus
848	738	C-C Chemokine Receptor 4	P51679	348	DESIYSNYLYESIPKPC	Homo sapiens
849	738	C-C Chemokine Receptor 4	P51679	351	DTPSSYTQSTMDHDLHD	Homo sapiens
850	738	C-C Chemokine Receptor 4	P51679	353	LETLVEVLQDCIFE	Homo sapiens
851	738	C-C Chemokine Receptor 4	P51679	491	RNHTYCKTKYSLNSTWK	Homo sapiens
852	741	C-C Chemokine Receptor 7	P32248	748	CQDEVTDYIGDNTTVD	Homo sapiens
853	741	C-C Chemokine Receptor 7	P32248	846	PELLYSDLQRSSEQAMRC	Homo sapiens
854	741	C-C Chemokine Receptor 7	P32248	847	QLRQWSSCRHRRSSMSVE	Homo sapiens
855	741	C-C Chemokine Receptor 7	P32248	848	GVKFRNDLFLFKDLGC	Homo sapiens
856	742	C-C Chemokine Receptor 8	P51685	359	PDIFSSPCDAELUQTNG	Homo sapiens

857	742	C-C Chemokine Receptor 8	P51685	360	KILHQLKRCQNHNKTKAIR	Homo sapiens
858	742	C-C Chemokine Receptor 8	P51685	362	SQIFNYLGRQMPRESC	Homo sapiens
859	742	C-C Chemokine Receptor 8	P51685	493	FVGEKFKHLSEIFQKSC	Homo sapiens
860	752	CXC Chemokine Receptor 3	P49682	1371	ENFSSYDYGENESDSC	Homo sapiens
861	752	CXC Chemokine Receptor 3	P49682	1372	CYAHILAVLLVSRGQRLRA	Homo sapiens
862	752	CXC Chemokine Receptor 3	P49682	1373	MVLEVSDHQVLNDAEVAALL	Homo sapiens
863	752	CXC Chemokine Receptor 3	P49682	1374	CPNQRGLQRQPSSRRD	Homo sapiens
864	753	CXC Chemokine Receptor 4	P30991	1376	TEEMGSGDYDSMKEPC	Homo sapiens
865	753	CXC Chemokine Receptor 4	P30991	1377	KKLRMTDKYRLHLSVAD	Homo sapiens
866	753	CXC Chemokine Receptor 4	P30991	1380	CIISKLSHSGHGQKRKALK	Homo sapiens
867	753	CXC Chemokine Receptor 4	P30991	1381	KILSKGKRGGHSSVSTE	Homo sapiens
868	755	Complement Component 3a Receptor 1	AAC50657.1	25	ENRSLNIVQPPGEMINDRLD	Homo sapiens
869	755	Complement Component 3a Receptor 1	AAC50657.1	26	KIPSGFPIEDHETSPLDNSD	Homo sapiens
870	755	Complement Component 3a Receptor 1	AAC50657.1	27	RKKARQSIQGIIEAAFSEE	Homo sapiens
871	755	Complement Component 3a Receptor 1	AAC50657.1	28	PQTFQRPASDSLPRGSARLT	Homo sapiens
872	758	Complement Component 5a Receptor 1	P21730	811	DLNTPVDKTSNLTLPD	Homo sapiens
873	758	Complement Component 5a Receptor 1	P21730	812	CGVDYSHDKRRERAVAIVRL	Homo sapiens
874	758	Complement Component 5a Receptor 1	P21730	813	CYTHLLRTWSRRATRSK	Homo sapiens
875	758	Complement Component 5a Receptor 1	P21730	814	QGRRLRKSLSLLRNVLTE	Homo sapiens
876	767	Calcitonin Receptor-like Receptor	Q16602	841	AEELESPEDSIQLGVTR	Homo sapiens
877	767	Calcitonin Receptor-like Receptor	Q16602	843	EFVLIPWRPEGKIAEEV	Homo sapiens
878	767	Calcitonin Receptor-like Receptor	Q16602	844	RRNWNQYKIQFGNSFSNSE	Homo sapiens
879	767	Calcitonin Receptor-like Receptor	Q16602	845	RSASYTVTSTISDGGPYSHDC	Homo sapiens
880	832	Cannabinoid Receptor 1	AAB18200.1	29	NDIQYEDIKGDMSKLG	Homo sapiens
881	832	Cannabinoid Receptor 1	AAB18200.1	30	KENEENIQCCGENFMIDIE	Homo sapiens
882	832	Cannabinoid Receptor 1	AAB18200.1	31	EDGKVQVTRPDQARMDIR	Homo sapiens

883	832	Cannabinoid Receptor 1	AAB18200.1	32	CEGTAQPLDNSMGDSD	Homo sapiens
884	832	Cannabinoid Receptor 1	AAB18200.1	274	MKSILDGLADTFR	Homo sapiens
885	832	Cannabinoid Receptor 1	AAB18200.1	297	NKLSSEKENEENIQC	Homo sapiens
886	833	Cannabinoid Receptor 2	CAA52376.1	33	KDGLDSNPMKDYMILSGPQK	Homo sapiens
887	833	Cannabinoid Receptor 2	CAA52376.1	34	QDRQVPGMARMRLDVR LAKT	Homo sapiens
888	833	Cannabinoid Receptor 2	CAA52376.1	35	KEEAPRSSVTETADGK	Homo sapiens
889	833	Cannabinoid Receptor 2	CAA52376.1	36	RSGEIRSSAHCLAHWKCK	Homo sapiens
890	922	Leukocyte Antigen CD97	NP_001775.1	2644	GRDPPAKDVMGPRQELLC	Homo sapiens
891	922	Leukocyte Antigen CD97	NP_001775.1	2646	CSPGYEPVSGAKTFKN	Homo sapiens
892	922	Leukocyte Antigen CD97	NP_001775.1	2647	FSSFELITPTETC	Homo sapiens
893	922	Leukocyte Antigen CD97	NP_001775.1	2648	CRPGWKPRHGIPNNQK	Homo sapiens
894	922	Leukocyte Antigen CD97	NP_001775.1	2649	DGEAGRDPPAKDVMGPR	Homo sapiens
895	922	Leukocyte Antigen CD97	NP_001775.1	2650	ANASLNLSKQKQAELE	Homo sapiens
896	922	Leukocyte Antigen CD97	NP_001775.1	2651	RLSAVNSIFLSHNNTKE	Homo sapiens
897	922	Leukocyte Antigen CD97	NP_001775.1	2652	KLTKQFSEINPDMKKL	Homo sapiens
898	922	Leukocyte Antigen CD97	NP_001775.1	2680	KLVDLMEAPGDVEAL	Homo sapiens
899	922	Leukocyte Antigen CD97	NP_001775.1	2681	RFFDKVQDLGRDSKTSS	Homo sapiens
900	941	EMR1 Hormone Receptor	Q14246	1180	RAEYLDIESKVINKEC	Homo sapiens
901	941	EMR1 Hormone Receptor	Q14246	2675	CVMHSWEGHIRPTRKPNTK	Homo sapiens
902	941	EMR1 Hormone Receptor	Q14246	2677	CLLNGQVREEYKRWITGKTKP	Homo sapiens
903	941	EMR1 Hormone Receptor	Q14246	2678	CLLNGQVREEYKRWITGK	Homo sapiens
904	941	EMR1 Hormone Receptor	Q14246	2679	SGHLSQCQGLKASCE	Homo sapiens
905	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1183	GTALANGTGELSEHQQ	Homo sapiens
906	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1184	ADSUEVFNLHERVYD	Homo sapiens
907	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1185	VRAHRHRLRPRRQKA	Homo sapiens
908	965	G Protein-Coupled Receptor GPR30	CAA67133.1	1186	DKLRLYEQKTNLPALNRF C	Homo sapiens
909	978	Cholecystokinin A Receptor	P32238	820	AKERKPSTSSGKYEDSDGC	Homo sapiens
910	978	Cholecystokinin A Receptor	P32238	821	CYLQKTRPPRKLELRQ	Homo sapiens
911	978	Cholecystokinin A Receptor	P32238	822	SANAWRAYDTASAERR	Homo sapiens
912	978	Cholecystokinin A Receptor	P32238	823	CPNPGPPGARGEVGEE	Homo sapiens
913	1103	Corticotropin releasing factor Receptor 2	Q13324	453	CEPILDDKQRKYDLHYRIAL	Homo sapiens
914	1103	Corticotropin releasing	Q13324	502	QLVDHEVHESNEVWC	Homo sapiens

915	factor Receptor 2	1103	Q13324	505	DPEGPVSYCNTILDQIGTCW	Homo sapiens
916	Corticotropin releasing factor Receptor 2	1103	LR43	507	ALLEQYCHTITMTLNLG	Homo sapiens
917	Corticotropin releasing factor Receptor 2	1240	CAA41734.1	41	SSHHEPRGSISKEC	Homo sapiens
918	Dopamine Receptor D1	1240	CAA41734.1	42	KAKTSPSDGNATSLAETID	Homo sapiens
919	Dopamine Receptor D1	1240	CAA41734.1	43	CSQPESFKMSFKRE	Homo sapiens
920	Dopamine Receptor D1	1240	CAA41734.1	44	EDLKKEEAAGIARPLEK	Homo sapiens
921	Dopamine Receptor D5	1241	P21918	1407	PWEEDFWEPDVNAENC	Homo sapiens
922	Dopamine Receptor D5	1241	P21918	1408	CAPDTSLRASIKKETK	Homo sapiens
923	Dopamine Receptor D5	1241	P21918	1409	PNAVTPGNREVDNDEE	Homo sapiens
924	Dopamine Receptor D5	1241	P21918	1410	QTSPDGDPAESVWELDC	Homo sapiens
925	Dopamine Receptor D2	1242	P14416	1403	KRSSRAFRALHRLAPLKGNC	Homo sapiens
926	Dopamine Receptor D2	1242	P14416	1404	CTVIMKSNGSFPVNRVRV	Homo sapiens
927	Dopamine Receptor D2	1242	P14416	1405	KPEKNGHAKDHPKIAK	Homo sapiens
928	Dopamine Receptor D2	1242	P14416	1406	GKTRTSLKMSRRKLSQQKE	Homo sapiens
929	Dopamine Receptor D3	1243	P35462	1398	KQRRRKRLTRQNSQC	Homo sapiens
930	Dopamine Receptor D3	1243	P35462	1399	CNSVRPGFPQQTLSDPD	Homo sapiens
931	Dopamine Receptor D3	1243	P35462	1400	CQDTALGGPGFQERGGE	Homo sapiens
932	Dopamine Receptor D3	1243	P35462	1401	KREEKTRNSLPTIAP	Homo sapiens
933	Dopamine Receptor D3	1243	P35462	1402	STSLKLGPLQPRGVPLRE	Homo sapiens
934	Dopamine Receptor D4	1244	P21917	1394	VAVAVPLRYNRQGGSR	Homo sapiens
935	Dopamine Receptor D4	1244	P21917	1395	EVARRAKLHGRAPRRP	Homo sapiens
936	Dopamine Receptor D4	1244	P21917	1396	PPSPTPPAPRLPQDPC	Homo sapiens
937	Dopamine Receptor D4	1244	P21917	1397	PPQTTPPQTRRRRAKITGRE	Homo sapiens
938	Opioid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	222	DAYPSAFPSAGANASGP	Homo sapiens
939	Opioid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	224	LVDIDRRDPLVVAALHLC	Homo sapiens
940	Opioid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	225	KRCFRQLCRKPCGRPD	Homo sapiens
941	Opioid Receptor, delta 1 (OPRD1)	1267	AAA18789.1	226	SRPREATARERVATAC	Homo sapiens
942	Duffy Antigen	1424	AAC50055.1	1411	TENSSQLDFEDVWNSS	Homo sapiens
943	Duffy Antigen	1424	AAC50055.1	1412	NDSFPDGDYDANLEAAAPC	Homo sapiens
944	Duffy Antigen	1424	AAC50055.1	1413	CHASLGHRLGAGQVPG	Homo sapiens

945	1424	Duffy Antigen	AAC50055.1	1415	FGAKGLKALGMGPGP	Homo sapiens
946	1451	EBV-Induced Gene 2	AAA35924.1	45	KQEAERITCMEYPNFEET	Homo sapiens
947	1451	EBV-Induced Gene 2	AAA35924.1	46	KLFRITAKQNPLTEKSGVNKK	Homo sapiens
948	1451	EBV-Induced Gene 2	AAA35924.1	47	KSAPENSREMITETQM	Homo sapiens
949	1451	EBV-Induced Gene 2	AAA35924.1	48	CKGYKRKVIRMLKRQ	Homo sapiens
950	1486	Endothelin B Receptor	BAA14398.1	54	GEERGFPDPDRAIPLLTAE	Homo sapiens
951	1486	Endothelin B Receptor	BAA14398.1	55	RLAPAEVPGKGDRTAGSP	Homo sapiens
952	1486	Endothelin B Receptor	BAA14398.1	56	PTISPPPCQGGPIEKE	Homo sapiens
953	1486	Endothelin B Receptor	BAA14398.1	57	EEKQSLEEKQSCCLKFKAND	Homo sapiens
954	1488	Endothelin A Receptor	AAB25530.1	49	RYSNLSNHVDDFTIFRGTE	Homo sapiens
955	1488	Endothelin A Receptor	AAB25530.1	50	NRRNGSLRIALSEHLK	Homo sapiens
956	1488	Endothelin A Receptor	AAB25530.1	51	EYRGEQHKTCMLNATSK	Homo sapiens
957	1488	Endothelin A Receptor	AAB25530.1	53	KNHDQNNHNIDRSSHKD	Homo sapiens
958	1598	Calcium-Sensing Receptor (CASR)	P41180	1425	RPGIEKFREEAEERDIC	Homo sapiens
959	1598	Calcium-Sensing Receptor (CASR)	P41180	1426	CHLQEGAKGPLPVDIFLR	Homo sapiens
960	1598	Calcium-Sensing Receptor (CASR)	P41180	1427	GHEESGDRFSNSSTAFRPLC	Homo sapiens
961	1598	Calcium-Sensing Receptor (CASR)	P41180	1428	KGIIEGEPTCCFECVECPDG	Homo sapiens
962	1598	Calcium-Sensing Receptor (CASR)	P41180	1429	CSTAAHAFKVAARATLRRSN	Homo sapiens
963	1598	Calcium-Sensing Receptor (CASR)	P41180	1430	PQKNAMAHNRNTHQNSLE	Homo sapiens
964	1598	Calcium-Sensing Receptor (CASR)	P41180	1431	RPEVEDPEELSPALVVSSSQ	Homo sapiens
965	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1878	ASWGGTPEERLKVATMLTA	Homo sapiens
966	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1879	SEDSAPTNDTAANSAS	Homo sapiens
967	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1880	SVESAGYTVLRILPLWL	Homo sapiens
968	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	1881	PVFLFTVTIPNGD	Homo sapiens
969	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	2612	EERLKVATMLTARGIIRFV	Homo sapiens
970	1676	Formyl Peptide Receptor-Like Receptor	NP_001453.1	2613	ERALSEDSAPTNDTAANSAS	Homo sapiens

971	1681	Like Receptor			58	QESKVTIPSDLPRIAEUR	Homo sapiens
972	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		59	DVLEIEADVFSNLPK	Homo sapiens
973	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		60	RNGHCSSAPRVTSYSTV	Homo sapiens
974	1681	Follicle Stimulating Hormone Receptor	AAA52477.1		61	RGQRSSLAEDNESSYRGFD	Homo sapiens
975	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2231	CHHRICHCSNRVFLCQE	Homo sapiens
976	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2232	LRVIQKGAFGSGFGDLEK	Homo sapiens
977	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2233	LYVMSLLVLNVLAFFVIC	Homo sapiens
978	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2234	CNKSILRQEVDMYMTGARGQR	Homo sapiens
979	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2236	SDNNILELPNDVFHGA	Homo sapiens
980	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2238	KLVALMEASLTYPSC	Homo sapiens
981	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2241	SFESVILWLNKNGIQEIHC	Homo sapiens
982	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2248	IHSLQKVLVDIQDNINIHT	Homo sapiens
983	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2250	KANNLLYTPEAFQNLPL	Homo sapiens
984	1681	Follicle Stimulating Hormone Receptor	NP_000136.1		2251	CYEMQAQIVRTETSTVH	Homo sapiens
985	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1437	TNPSSRKKMVRVRVC	Homo sapiens
986	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1439	ARASASSDQEKHSRK	Homo sapiens
987	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1440	KYSAKTGLTKLIDASRVSET	Homo sapiens
988	1726	G Protein-Coupled Receptor RDC1	AAA62370.1		1893	PDTYVLKTVTSASNNETYC	Homo sapiens
989	1762	Galanin Receptor GalR1	AAA50767.1		192	GNSLVITVLARSKPGKPR	Homo sapiens
990	1762	Galanin Receptor GalR1	AAA50767.1		193	PRASNQTCWEQWDPRIKK	Homo sapiens

991	1762	Galanin Receptor Gair1	AAA50767.1	194	KKLKNMSKSEASKKTAQ	Homo sapiens
992	1762	Galanin Receptor Gair1	AAA50767.1	195	GNSLVITVLARSKP	Homo sapiens
993	1762	Galanin Receptor Gair1	AAA50767.1	196	RKDSHLSDTKENKSRID	Homo sapiens
994	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1250	QTAGELYQRWERYRREC	Homo sapiens
995	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1251	CENPEKNEAFLDQRLILR	Homo sapiens
996	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1253	CRLRRSLGEEQRQLPERAFR	Homo sapiens
997	1808	Gastric Inhibitory Polypeptide Receptor	P48546	1276	PTSRGLSSGTLPGPGNEA	Homo sapiens
998	1813	Gastrin-Releasing Peptide Receptor	P30550	829	CNISSHSADLPVNDDWSHPG	Homo sapiens
999	1813	Gastrin-Releasing Peptide Receptor	P30550	830	SDLHPFHEESTNQTFISC	Homo sapiens
1000	1813	Gastrin-Releasing Peptide Receptor	P30550	831	YNLPVEGNIHVKKQIES	Homo sapiens
1001	1813	Gastrin-Releasing Peptide Receptor	P30550	832	CQPGLIIRSHSTGRSTT	Homo sapiens
1002	1814	Cholecystokinin B Receptor	Q16144	1281	CEPPRIRGAGTRELEAIR	Homo sapiens
1003	1814	Cholecystokinin B Receptor	Q16144	1282	RVRNQGGLPGAVHQNGRC	Homo sapiens
1004	1814	Cholecystokinin B Receptor	Q16144	1283	LRFDGSDSDSQSRVR	Homo sapiens
1005	1814	Cholecystokinin B Receptor	Q16144	1284	CRPETGAVGKDSGDCY	Homo sapiens
1006	1834	Glucagon Receptor	P47871	837	DGLLRTRYSGKIGDDL	Homo sapiens
1007	1834	Glucagon Receptor	P47871	838	CGPDGGQWVRGPRGQPWRDAS	Homo sapiens
1008	1834	Glucagon Receptor	P47871	839	CQMDGEEIEVQKEVAKMYSS	Homo sapiens
1009	1834	Glucagon Receptor	P47871	840	TSNHRASSSPGHGPPSKE	Homo sapiens
1010	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	206	KLQKWTQKKEGKKLSRMK	Homo sapiens
1011	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	207	DRSLAIRPLALKSNSKVGQ	Homo sapiens
1012	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	208	RMHLADSSGQTKVFSQC	Homo sapiens
1013	1925	Gonadotropin-Releasing Hormone Receptor	AAA35917.1	209	DPHELQLNQSKNNIPRARLK	Homo sapiens
1014	1945	Opsin, green-sensitive	NP_000504.1	1746	QRLAGRHPQDSYEDSTQSS	Homo sapiens
1015	1945	Opsin, green-sensitive	NP_000504.1	1747	CKPFGNVRFDAKLAIVG	Homo sapiens
1016	1945	Opsin, green-sensitive	NP_000504.1	1748	KTSCGPDVFGSSYPGVQS	Homo sapiens

1017	1945	Opsin, green-sensitive	NP_000504.1	1750	CILQLFGKKVDDGSELSS	Homo sapiens
1018	1945	Opsin, green-sensitive	NP_000504.1	1767	STRGPFEGPNYHIAPR	Homo sapiens
1019	1945	Opsin, green-sensitive	NP_000504.1	1768	TNGLVLAATMKFKLR	Homo sapiens
1020	1945	Opsin, green-sensitive	NP_000504.1	1769	ELSSASKTEVSSVSSP	Homo sapiens
1021	1951	Growth Hormone	Q92847	581	ADLDWDASPGNDSLGD	Homo sapiens
1022	1951	Secretagogue Receptor	Q92847	582	GVEHENGTPWDTNEC	Homo sapiens
1023	1951	Secretagogue Receptor	Q92847	583	KLWRRRRGDAVVGASL	Homo sapiens
1024	1951	Secretagogue Receptor	Q92847	584	SQRKLSTLKDESSRAW	Homo sapiens
1025	1954	Secretagogue Receptor	Q02643	833	REDESACLQAAEEMPNTILG	Homo sapiens
1026	1954	Growth Hormone-Releasing	Q02643	834	CPDFFSHFSSES GAVKRD	Homo sapiens
1027	1954	Hormone Receptor	Q02643	835	VRKLEPAQGSILHTQSQ	Homo sapiens
1028	1954	Growth Hormone-Releasing	Q02643	836	RTEISRKWHGHDPELL	Homo sapiens
1029	2120	Histamine H1 Receptor	P35367	1167	GWNHFMQQTSVRREDKC	Homo sapiens
1030	2120	Histamine H1 Receptor	P35367	1168	CQHRELINRSLPSFSEIKLR	Homo sapiens
1031	2120	Histamine H1 Receptor	P35367	1169	AGGGSVLKSPSQTPKE	Homo sapiens
1032	2120	Histamine H1 Receptor	P35367	1170	KSPV/FSQEDDDREVDKLYC	Homo sapiens
1033	2120	Histamine H1 Receptor	P35367	1171	TAPGKGKLRSGSNTGLD	Homo sapiens
1034	2120	Histamine H1 Receptor	P35367	1172	KRLRSHSRQYVSGLHMNRE	Homo sapiens
1035	2121	Histamine H2 Receptor	P25021	1173	NSRNETSKGNHTSKC	Homo sapiens
1036	2121	Histamine H2 Receptor	P25021	1174	CITYYRIFKVARDQAKR	Homo sapiens
1037	2121	Histamine H2 Receptor	P25021	1175	RDQAKRINHISWKAA	Homo sapiens
1038	2121	Histamine H2 Receptor	P25021	1176	TAFVYRGLRGDDAINE	Homo sapiens
1039	2121	Histamine H2 Receptor	P25021	1177	HKTSLSRNASQLSRITQSRE	Homo sapiens
1040	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	227	DSNGSAGSEDAQLEPA	Homo sapiens
1041	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	228	KVREDVDVIECSLQFPDDD	Homo sapiens
1042	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	229	RNTVQDPAYLRDIDGMNK	Homo sapiens
1043	2783	Oploid Receptor, kappa 1 (OPRK1)	AAA63906.1	230	CFPLKMRMERQSTSRVRN	Homo sapiens

1044	2964	(OPRK1) Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1432	CNTGIRKFPDVTKVFSSSN	Homo sapiens
1045	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1433	KMHNGAFRGATGPKTLD	Homo sapiens
1046	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1434	CESTVRKV/SNKTLVSS	Homo sapiens
1047	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1435	FAVRNPELMAINIKDTK	Homo sapiens
1048	2964	Luteinizing Hormone/Choriogonadotro pin Receptor	Q14751	1436	CKRRAELYRRKDFSAVTSN	Homo sapiens
1049	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	210	ERHITVFRMQLHTRMSNRR	Homo sapiens
1050	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	211	RQRTMRMSRHSSGPRNRD	Homo sapiens
1051	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	212	KHLATEWNTVSKLVM	Homo sapiens
1052	2976	Lysophosphatidic Acid Receptor Edg2	AAC51139.1	213	ENPTGPTESSDRSASSLN	Homo sapiens
1053	3038	G Protein-Coupled Receptor MRG	AAB21255.1	184	ESQISLSCSLCHSGDQEAQ	Homo sapiens
1054	3038	G Protein-Coupled Receptor MRG	AAB21255.1	185	QQQKATRVAVVGISAPM	Homo sapiens
1055	3038	G Protein-Coupled Receptor MRG	AAB21255.1	186	DKPEVGRNKKAAAGIDPME	Homo sapiens
1056	3038	G Protein-Coupled Receptor MRG	AAB21255.1	187	EQPHSTQHVENILLPREHRVD	Homo sapiens
1057	3057	Melanocortin 3 Receptor (MC3R)	P41968	451	RLHVVKRIAALPPADGVAPQ	Homo sapiens
1058	3057	Melanocortin 3 Receptor (MC3R)	P41968	452	DPLVAFRSLELRNIFRE	Homo sapiens
1059	3057	Melanocortin 3 Receptor (MC3R)	P41968	562	QAPFFSNQSSSAFCEQVFI	Homo sapiens
1060	3057	Melanocortin 3 Receptor (MC3R)	P41968	563	IVHSDYLTEDQFIQHMDNI	Homo sapiens

1061	3058	(MC3R) Melanocortin 4 Receptor	AAB33341.1	1032	HSNASESLGKGYSDGGC	Homo sapiens
1062	3058	(MC4R) Melanocortin 4 Receptor	AAB33341.1	1033	KRIAVLPGTGAIRQGA	Homo sapiens
1063	3058	(MC4R) Melanocortin 4 Receptor	AAB33341.1	1035	NSTDTDAQSFTVNIDN	Homo sapiens
1064	3058	(MC4R) Melanocortin 4 Receptor	AAB33341.1	1469	NSTHRGMHTSLHLWNRSSYR	Homo sapiens
1065	3059	(MC4R) Melanocortin 5 Receptor	P33032	1022	ATEGNLSGPNVKNKSSPC	Homo sapiens
1066	3059	(MC5R) Melanocortin 5 Receptor	P33032	1024	NKHLVIAADAFVRHIDN	Homo sapiens
1067	3059	(MC5R) Melanocortin 5 Receptor	P33032	1025	MNSSFHLHFLDLNLNAT	Homo sapiens
1068	3059	(MC5R) Melanocortin 5 Receptor	P33032	1026	RYHHIMTARRSGAIIAG	Homo sapiens
1069	3061	(MC5R) Melanocortin 1 Receptor	AAD41352.1	1036	QGSQRRLLGSLNSTPT	Homo sapiens
1070	3061	(MC1R) Melanocortin 1 Receptor	AAD41352.1	1038	EAGALVARAAVLQQLD	Homo sapiens
1071	3061	(MC1R) Melanocortin 1 Receptor	AAD41352.1	1039	ALRYHSIVTLPRARQA	Homo sapiens
1072	3061	(MC1R) Melanocortin 1 Receptor	AAD41352.1	1040	CQHAQGIARLHKRQRP	Homo sapiens
1073	3079	Melatonin Receptor type 1a	AAB17720.1	214	HSLKYDKLYSSKNSLC	Homo sapiens
1074	3079	Melatonin Receptor type 1a	AAB17720.1	215	CTARVFFVDSSNDVADR	Homo sapiens
1075	3079	Melatonin Receptor type 1a	AAB17720.1	216	QVRQVRVKPDRKPKLKP	Homo sapiens
1076	3079	Melatonin Receptor type 1a	AAB17720.1	217	DSSNDVADRVKWKPSPLMTN	Homo sapiens
1077	3080	Melatonin Receptor type 1b	P49286	930	AVRPGWSGAGSARPSR	Homo sapiens
1078	3080	Melatonin Receptor type 1b	P49286	931	LVAIFYDGGWALGEEHC	Homo sapiens
1079	3080	Melatonin Receptor type 1b	P49286	932	LVLGARRKAKPESRLC	Homo sapiens
1080	3080	Melatonin Receptor type 1b	P49286	933	CIGDASKGSHAEGLQSPA	Homo sapiens
1081	3080	Melatonin Receptor type 1b	P49286	934	QEMAPQIPEGLFVTSY	Homo sapiens
1082	3081	Melatonin-Related Receptor	Q13585	751	LAARDPAGQNPNDNQLAE	Homo sapiens
1083	3081	Melatonin-Related Receptor	Q13585	752	ARARAHARDQAREQDRAHAC	Homo sapiens
1084	3081	Melatonin-Related Receptor	Q13585	753	DRASGHPKPHSRSSAY	Homo sapiens
1085	3081	Melatonin-Related Receptor	Q13585	754	HPKPAAADNPELSASHC	Homo sapiens

1086	3081	Melatonin-Related Receptor	Q13585	755	DDSDLPESASSPAAAGPT	Homo sapiens
1087	3093	Metabotropic Glutamate Receptor 1	Q13255	879	DDYKIQIMNKSGVVRVVC	Homo sapiens
1088	3093	Metabotropic Glutamate Receptor 1	Q13255	880	CRSNITFLNIFRRKKAG	Homo sapiens
1089	3093	Metabotropic Glutamate Receptor 1	Q13255	881	DTSTKILYNVEEEEDA	Homo sapiens
1090	3093	Metabotropic Glutamate Receptor 1	Q13255	882	ERFKLLQEYVVEHERE	Homo sapiens
1091	3094	Metabotropic Glutamate Receptor 2	Q14416	891	DFVRASLSRGADGSRHIC	Homo sapiens
1092	3094	Metabotropic Glutamate Receptor 2	Q14416	892	CVATSEKVGGRAMSRAAFEG	Homo sapiens
1093	3094	Metabotropic Glutamate Receptor 2	Q14416	893	CAAHSLRAVPFEQESK	Homo sapiens
1094	3094	Metabotropic Glutamate Receptor 2	Q14416	894	CDAMRPVNGRRLYKDF	Homo sapiens
1095	3094	Metabotropic Glutamate Receptor 2	Q14416	895	DAPFRPADTHNEVRFDR	Homo sapiens
1096	3094	Metabotropic Glutamate Receptor 2	Q14416	896	GKETAPERREVLTLC	Homo sapiens
1097	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	897	GGLFPINEKGTGTEEC	Homo sapiens
1098	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	898	EFVRASLTKVDEAEYMC	Homo sapiens
1099	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	899	RSNIRKSYDSVIRELL	Homo sapiens
1100	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	900	CDKHLAIDSSNVEQES	Homo sapiens
1101	3095	Metabotropic Glutamate Receptor 3	CAA54796.1	902	GTRRYTLAEKRETVILKC	Homo sapiens
1102	3096	Metabotropic Glutamate Receptor 4	Q14833	909	PSSLGKPKGHPHMINSRID	Homo sapiens
1103	3096	Metabotropic Glutamate Receptor 4	Q14833	910	CGSGGPIITKPERVVG	Homo sapiens
1104	3096	Metabotropic Glutamate Receptor 4	Q14833	911	CKLSRHALKKGSHVKK	Homo sapiens
1105	3096	Metabotropic Glutamate Receptor 4	Q14833	913	CPRMDPVDGTQLLKVI	Homo sapiens

1106	3096	Metabotropic Glutamate Receptor 4	Q14833	914	RIERMHWP GSGGQLPR SIC	Homo sapiens
1107	3097	Metabotropic Glutamate Receptor 5	P41594	883	KDYFDYIN VGSWDNGEL	Homo sapiens
1108	3097	Metabotropic Glutamate Receptor 5	P41594	884	KMDDDEVW SKKSNIR SVC	Homo sapiens
1109	3097	Metabotropic Glutamate Receptor 5	P41594	885	GETLRYKDR RL AQHKSEIC	Homo sapiens
1110	3097	Metabotropic Glutamate Receptor 5	P41594	886	NPNQTAVIK PFPKSTE	Homo sapiens
1111	3097	Metabotropic Glutamate Receptor 5	P41594	887	KALYDVAE AEEHFPAPA	Homo sapiens
1112	3097	Metabotropic Glutamate Receptor 5	P41594	888	RSPSPISL SHRAGSASRTD	Homo sapiens
1113	3097	Metabotropic Glutamate Receptor 5	P41594	889	RESPAAGPE AAAAKPD	Homo sapiens
1114	3098	Metabotropic Glutamate Receptor 6	O15303	903	QALIRGRGD GDEVGVRC	Homo sapiens
1115	3098	Metabotropic Glutamate Receptor 6	O15303	904	KLTSSTGTSQ DDDSTRKC	Homo sapiens
1116	3098	Metabotropic Glutamate Receptor 6	O15303	905	DVEALQWSG DPHVPSSL C	Homo sapiens
1117	3098	Metabotropic Glutamate Receptor 6	O15303	906	RFQVDEFTCE ACPCGDM	Homo sapiens
1118	3098	Metabotropic Glutamate Receptor 6	O15303	907	GARPPHSVID YEEQRT	Homo sapiens
1119	3099	Metabotropic Glutamate Receptor 7	Q14831	917	CIAGSVRIPQ ERKDR TIDFD	Homo sapiens
1120	3099	Metabotropic Glutamate Receptor 7	Q14831	918	NDEDIKQIL AAARAD	Homo sapiens
1121	3099	Metabotropic Glutamate Receptor 7	Q14831	921	NIEDMQWKG VREIPASVC	Homo sapiens
1122	3099	Metabotropic Glutamate Receptor 7	Q14831	2693	IKQLLDTPN SRAVVI	Homo sapiens
1123	3099	Metabotropic Glutamate Receptor 7	Q14831	2694	DPPNIIDYDE HKTIM	Homo sapiens
1124	3100	Metabotropic Glutamate Receptor 8	O00222	922	CANGDPPIFT KPDKIS	Homo sapiens
1125	3100	Metabotropic Glutamate Receptor 8	O00222	923	CPRMSTIDG KELLGYIRA	Homo sapiens

1126	3100	Receptor 8	O00222	924	KVEDMQWAHREHHPASVC	Homo sapiens
1127	3100	Metabotropic Glutamate Receptor 8	O00222	925	CESLETINISSTIKTYSYS	Homo sapiens
1128	3100	Metabotropic Glutamate Receptor 8	O00222	1894	KFYWILTMIMQRTHSQEYAH	Homo sapiens
1129	3212	Opiloid mu-type Receptor	AAA20580.1	231	DGNLSDPCGPNRTNLGGRDS	Homo sapiens
1130	3212	Opiloid mu-type Receptor	AAA20580.1	232	DRTNHQLENLEAETAPLP	Homo sapiens
1131	3212	Opiloid mu-type Receptor	AAA20580.1	233	IKALVTIPETTFQTVS	Homo sapiens
1132	3212	Opiloid mu-type Receptor	AAA20580.1	234	RIRQNTRDHPSTANTVD	Homo sapiens
1133	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1325	SERSQPGAEQSPETPPGRC	Homo sapiens
1134	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1326	CRAPRLLQAYSWKEE	Homo sapiens
1135	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1327	SSEGEPPGSEVWIKMP	Homo sapiens
1136	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1328	KQPPRSSPNTV/KRPTKKGRD	Homo sapiens
1137	3223	Muscarinic acetylcholine Receptor M1	AAA35686.1	1329	CRWDKRRWRKIPKRP	Homo sapiens
1138	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1330	EHNKIQNGKAPRDPVTENC	Homo sapiens
1139	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1331	DTSVSAVASNMRRDE	Homo sapiens
1140	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1332	ENTVSTSLGHSKDENSQJIC	Homo sapiens
1141	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1333	DEKQNVIVARKIVKMTK	Homo sapiens
1142	3224	Muscarinic acetylcholine Receptor M2	AAA51570.1	1831	RIKKDKKEPVANQDPVSPSL	Homo sapiens
1143	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	218	SRSRVHHRPEGPKEKKA	Homo sapiens
1144	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	219	KKPRPGGRPGGLRNGKLEEA	Homo sapiens
1145	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	220	DKDTSNESSSGSATQNTKER	Homo sapiens
1146	3226	Muscarinic acetylcholine Receptor M4	AAA51571.1	221	RPAANVARKFASIRNQVRK	Homo sapiens

1147	3227	Muscarinic Acetylcholine Receptor M5	P08912	1334	KAEKRKPAHRAFRSC	Homo sapiens
1148	3227	Muscarinic Acetylcholine Receptor M5	P08912	1335	CSSYPSEDEDKPATD	Homo sapiens
1149	3227	Muscarinic Acetylcholine Receptor M5	P08912	1336	KESPGEEFSAEETETIV	Homo sapiens
1150	3227	Muscarinic Acetylcholine Receptor M5	P08912	1337	KFRLVVKADGNQETNNGC	Homo sapiens
1151	3227	Muscarinic Acetylcholine Receptor M5	P08912	1338	KEPSTKGLNPNPSHQM	Homo sapiens
1152	3378	Tachykinin Receptor 3	NP_001050.1	1757	PAAETWIDGGGGVGAD	Homo sapiens
1153	3378	Tachykinin Receptor 3	NP_001050.1	1759	PSQPWANLITNGFVQPSWR	Homo sapiens
1154	3378	Tachykinin Receptor 3	NP_001050.1	1760	SRKKRATPRDPSFNGC	Homo sapiens
1155	3378	Tachykinin Receptor 3	NP_001050.1	2265	ADAVNLITASLAAGAA	Homo sapiens
1156	3378	Tachykinin Receptor 3	NP_001050.1	2290	SPSALGLPVASAPSPQP	Homo sapiens
1157	3380	Neuromedin B Receptor	P28336	824	ERDFLPASDGTTELVRIC	Homo sapiens
1158	3380	Neuromedin B Receptor	P28336	825	KTUKSAHNLPGEYNE	Homo sapiens
1159	3380	Neuromedin B Receptor	P28336	826	SEVARISLDNSSFTAC	Homo sapiens
1160	3380	Neuromedin B Receptor	P28336	828	CGRKSYQERGTSYLLSSA	Homo sapiens
1161	3404	Neuropeptide Y Receptor Type 2	P49146	1057	RGELVPDPEPELIDST	Homo sapiens
1162	3404	Neuropeptide Y Receptor Type 2	P49146	1058	CIVYHLESKISRISF	Homo sapiens
1163	3404	Neuropeptide Y Receptor Type 2	P49146	1059	REYSLIEIPDFEIVAC	Homo sapiens
1164	3404	Neuropeptide Y Receptor Type 2	P49146	1060	NDHYHQRRQRTTKMLVC	Homo sapiens
1165	3404	Neuropeptide Y Receptor Type 2	P49146	1061	CEQRDLAIHSEVSVTFKAKK	Homo sapiens
1166	3404	Neuropeptide Y Receptor Type 2	P49146	2297	MGPIGAEADENQTV EEMKVE	Homo sapiens
1167	3404	Neuropeptide Y Receptor Type 2	P49146	2298	SEVSVTFKAKKNLEVRKNSG	Homo sapiens
1168	3405	Neuropeptide Y Receptor Type 4	P50391	1068	CVTVRQKEKANVTNLL	Homo sapiens
1169	3405	Neuropeptide Y Receptor Type 4	P50391	1069	KNHSALEFLADKVC	Homo sapiens
1170	3405	Neuropeptide Y Receptor Type 4	P50391	1070	CYARIYRRLQRGGRVFHKG	Homo sapiens

1171	3405	Type 4 Neuropeptide Y Receptor	P50391	1071	CQQSAPLESEHLPST	Homo sapiens
1172	3405	Type 4 Neuropeptide Y Receptor	P50391	2275	SEHCQDSVDVMVFVTS	Homo sapiens
1173	3406	Type 4 Neuropeptide Y Receptor	Q15761	1072	MKKRNQKTTVNFUGN	Homo sapiens
1174	3406	Type 5 Neuropeptide Y Receptor	Q15761	1073	CGLSNKENRLEENEMI	Homo sapiens
1175	3406	Type 5 Neuropeptide Y Receptor	Q15761	1074	NLTLPSPKSGPQVKL	Homo sapiens
1176	3406	Type 5 Neuropeptide Y Receptor	Q15761	1075	SFIKKHRRRYSKKTAC	Homo sapiens
1177	3406	Type 5 Neuropeptide Y Receptor	Q15761	1076	PERPSQENHSRIIPEN	Homo sapiens
1178	3406	Type 5 Neuropeptide Y Receptor	Q15761	1077	CFEIKPEENSVDVHELRV	Homo sapiens
1179	3408	Neurotensin Receptor Type 1	P30989	935	RVLAAPSSSELDVNTDIYS	Homo sapiens
1180	3408	Neurotensin Receptor Type 1	P30989	936	CHPFFAKTLMRSRTKK	Homo sapiens
1181	3408	Neurotensin Receptor Type 1	P30989	937	GEQNRSDGQHAGGLVC	Homo sapiens
1182	3408	Neurotensin Receptor Type 1	P30989	938	RQAAEQGGQVCTVGGEHS	Homo sapiens
1183	3408	Neurotensin Receptor Type 1	P30989	939	CPVWRRRRKRPAFSRKADS	Homo sapiens
1184	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	940	CHPIRALDVRTSSKAQA	Homo sapiens
1185	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	941	PVAIMGSAQVEDEEIEC	Homo sapiens
1186	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	942	GVQPSSETAVAILRFC	Homo sapiens
1187	3452	Oplate Receptor-Like 1 (OPRL1)	P41146	943	CASALRRDVQVSDRVRSAK	Homo sapiens
1188	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2123	TPEPRPRTQPMASPRIGTFC	Homo sapiens
1189	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2124	TAVASLLKGRQGIYE	Homo sapiens

1190	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2125	EMQTDINGGSLKPVRTAAK	Homo sapiens
1191	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2126	CSLGFQSPRKEIQWES	Homo sapiens
1192	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2127	SEGSDASTIEIHTASESC	Homo sapiens
1193	3513	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_000264.1	2128	NPASGKVSQVGGQTSD	Homo sapiens
1194	3544	Ocular Albinism 1 (Nettleship-Falls) (OA1)	NP_055694.1	1486	CKKLHPLKAQNLDISRIK	Homo sapiens
1195	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1500	KIVKPLWTSFIQSVSYSKLL	Homo sapiens
1196	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1502	TAITKIKFSLKSSRNSTS	Homo sapiens
1197	3544	UDP-glucose Receptor (KIAA0001)	NP_055694.1	1503	VKKKSSRNIFSIVFFVC	Homo sapiens
1198	3582	Oxytocin Receptor	CAA46097.1	244	AEGNRTAGPPRRNEALARVE	Homo sapiens
1199	3582	Oxytocin Receptor	CAA46097.1	245	RLAVLATWLGCLVASAP	Homo sapiens
1200	3582	Oxytocin Receptor	CAA46097.1	246	PEGAAAGDGGRRVALAR	Homo sapiens
1201	3582	Oxytocin Receptor	CAA46097.1	247	YLGRRRLGETSASKSNSS	Homo sapiens
1202	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	854	MQRIGDVLGSSEDFRR	Homo sapiens
1203	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	855	ARGGRVTCHDTSAPEL	Homo sapiens
1204	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	856	KPAYGTSGGLPRAKRK	Homo sapiens
1205	3589	Purinergic Receptor P2Y, G- protein coupled, 2 (P2RY2)	AAC04923.1	857	TGFPATPARRRLGLRRSD	Homo sapiens
1206	3595	Purinergic Receptor P2Y1	CAA07339.1	386	RYSGVVYPLKSLGRLKKKN	Homo sapiens
1207	3595	Purinergic Receptor P2Y1	CAA07339.1	387	SGTGVRKNKITCYD	Homo sapiens
1208	3595	Purinergic Receptor P2Y1	CAA07339.1	388	RALYKDLDNSPLRRKS	Homo sapiens
1209	3595	Purinergic Receptor P2Y1	CAA07339.1	389	DTFRRRLSRATRKASRRSE	Homo sapiens
1210	3596	Purinergic Receptor P2Y5	P43657	850	FVQSTHSQGNNAEAC	Homo sapiens
1211	3596	Purinergic Receptor P2Y5	P43657	851	MVLKTLTKPVTLSRSKI	Homo sapiens
1212	3596	Purinergic Receptor P2Y5	P43657	852	TIQNSIKMKNWSVRRSD	Homo sapiens
1213	3596	Purinergic Receptor P2Y5	P43657	853	SEVHGAENFIQHNLQTLK	Homo sapiens
1214	3597	Purinergic Receptor P2Y6	Q15077	874	CTSRRALTRTAVYTLN	Homo sapiens
1215	3597	Purinergic Receptor P2Y6	Q15077	875	AQERRGKAARMAVVV	Homo sapiens

1216	3597	Purineric Receptor P2Y6	Q15077	876	TKTAYLAVRSTPGVPC	Homo sapiens
1217	3597	Purineric Receptor P2Y6	Q15077	877	KKFRRPHELLQKLTAK	Homo sapiens
1218	3597	Purineric Receptor P2Y6	Q15077	2726	CHPLAPWHKRGGRRAAW	Homo sapiens
1219	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	870	CFRMKMRSETAIFTN	Homo sapiens
1220	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	871	RTLKRPATLSQIGTNKK	Homo sapiens
1221	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	872	ESFQKSFYINAHIRMES	Homo sapiens
1222	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	873	KTETPLTIKPSLPAIQEE	Homo sapiens
1223	3599	G Protein-Coupled Receptor 23 (GPR23)	Q99677	1895	SSLRPRLGNATANNTCIVD	Homo sapiens
1224	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	248	KAKVQCELNITAIQLQEGE	Homo sapiens
1225	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	249	ESLIMQDDDPQNSIEATSVDK	Homo sapiens
1226	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	250	NSEQDCLPHSFHEETKE	Homo sapiens
1227	3638	Parathyroid Hormone Receptor 2 (PTHr2)	AAC50157.1	251	EETKEDSGRQGDDILMEKPS	Homo sapiens
1228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	761	CEKRLKEVLQRPASIMESDK	Homo sapiens
1229	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	762	ESEEDKEAPTGSRYRGRPC	Homo sapiens
1230	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	763	LYSGATLDEAERLIEEELR	Homo sapiens
1231	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Q03431	765	KDDGFLNGSCSGLDEEASG	Homo sapiens
1232	3732	PACAP Receptor Type 1	P41586	944	CLEKIQRANELMGFNDSS	Homo sapiens
1233	3732	PACAP Receptor Type 1	P41586	945	CPFLFRIFNPDQVWETET	Homo sapiens
1234	3732	PACAP Receptor Type 1	P41586	946	DSNSLDLSDMGWVSRNC	Homo sapiens
1235	3732	PACAP Receptor Type 1	P41586	948	IKRKWRSWKVNRVFAVD	Homo sapiens
1236	3732	PACAP Receptor Type 1	P41586	2292	ESDFGDSNSLDLSDMGVWSR	Homo sapiens
1237	3844	Apelin Receptor	AAA18954.1	62	RTTGDLNNTKVQC	Homo sapiens
1238	3844	Apelin Receptor	AAA18954.1	63	RSSREKRRSADIFAS	Homo sapiens
1239	3844	Apelin Receptor	AAA18954.1	64	QTIAGHFRKERIEGLRKRPR	Homo sapiens
1240	3844	Apelin Receptor	AAA18954.1	65	GPNMKGKGGEQMHEKSIYSQ	Homo sapiens

1241	3845	Chemokine-Like Receptor 1 (CMKLR1)	LR39	447	RMEDEDYNTSISYGDEYPD	Homo sapiens
1242	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	448	DSIVLEDSLPLEARVTR	Homo sapiens
1243	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	449	LTIVCKLHRNRLAKTKPKFK	Homo sapiens
1244	3845	Chemokine-Like Receptor 1 (CMKLR1)	Q99788	450	RSFTKMSSMNERTSMNERE	Homo sapiens
1245	3846	Spingolipid Receptor Edg1	AAA52336.1	1010	TRSRRLTRKNISKASRSSE	Homo sapiens
1246	3846	Spingolipid Receptor Edg1	AAA52336.1	1011	CPSGDSAGKFKRPIIAG	Homo sapiens
1247	3846	Spingolipid Receptor Edg1	AAA52336.1	1012	CPSGDSAGKFKRPIIAGME	Homo sapiens
1248	3846	Spingolipid Receptor Edg1	AAA52336.1	1013	RSKSDNSSHPQKDEGD	Homo sapiens
1249	3847	Spingolipid Receptor Edg3	Q99500	1028	ERHLTMIKMRPYDANK	Homo sapiens
1250	3847	Spingolipid Receptor Edg3	Q99500	1029	LVKSSSRKVANHNNSE	Homo sapiens
1251	3847	Spingolipid Receptor Edg3	Q99500	1030	SPKVKEDLPHTDPSSC	Homo sapiens
1252	3847	Spingolipid Receptor Edg3	Q99500	1031	CLVRGRGARASPIQPALD	Homo sapiens
1253	3847	Spingolipid Receptor Edg3	Q99500	1752	REHYQVVGKLAGRLKEASE	Homo sapiens
1254	3848	C-C Chemokine Receptor 9	P51686	958	RAHTWREKRLLYSKMVC	Homo sapiens
1255	3848	C-C Chemokine Receptor 9	P51686	959	KEESGIAICTMVVPSDEST	Homo sapiens
1256	3848	C-C Chemokine Receptor 9	P51686	960	QAKKSKHKALKVTIT	Homo sapiens
1257	3848	C-C Chemokine Receptor 9	P51686	961	GERFRDLVKTILNLGC	Homo sapiens
1258	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	74	ENYSYDLDYWSLESDEEK	Homo sapiens
1259	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	75	RDTVEFNHITLCYNNFQKHD	Homo sapiens
1260	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	76	SKKFQARFRSSVAEILK	Homo sapiens
1261	3849	G Protein-Coupled Receptor GPR1	AAA64592.1	77	GTVSEQLRNSETKNLC	Homo sapiens
1262	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1087	HPILRRRISRLSAYAV	Homo sapiens
1263	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1088	CEEFWGSQERQRQLYA	Homo sapiens
1264	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1089	SVVRVSVKLRNIRVWPGC	Homo sapiens
1265	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1090	CVTQSQADWDRAARRR	Homo sapiens
1266	3850	G Protein-Coupled Receptor 10 (GPR10)	O75194	1091	DSFREELRKLVAWPRKIA	Homo sapiens

1267	3851	Receptor 10 (GPR10) G Protein-Coupled Receptor GPR12	AAA91630.1	78	GCISSLAQARARSPD	Homo sapiens
1268	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	79	ENISAAVSSRVPAVEPEE	Homo sapiens
1269	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	307	STCSVVRPLTKNNA	Homo sapiens
1270	3851	G Protein-Coupled Receptor GPR12	AAA91630.1	308	QSEATKLVITIGLIVAS	Homo sapiens
1271	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	84	KQKENECLGDYPEVLQE	Homo sapiens
1272	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	85	SMNNRTVQHGVTISL	Homo sapiens
1273	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	86	ETLKLYDFFPSCDMRKDLR	Homo sapiens
1274	3852	CX3C Chemokine Fractalkine Receptor 1	AAA91783.1	87	GRSVHVDFFSSSESQSRHGS	Homo sapiens
1275	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1511	CLKNYDFGSSSTETSDSHLTK	Homo sapiens
1276	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1512	KALSTFHAEDFARRRKRS	Homo sapiens
1277	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1612	ATSPNSDIRETHSHVP	Homo sapiens
1278	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1613	LMGALHFKPGSRRUD	Homo sapiens
1279	3853	G Protein-Coupled Receptor GPR15	NP_005281.1	1615	GLPTLLSRELTJDDKPYC	Homo sapiens
1280	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	93	DRYMAIVQPKYAKELKNTC	Homo sapiens
1281	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	94	KDPDKDSTPATCLKISD	Homo sapiens
1282	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	95	GRTSKLKPKVKEKSIR	Homo sapiens
1283	3854	G Protein-Coupled Receptor GPR18	AAB65819.1	96	RNYLRLSLRRKSRFGSLR	Homo sapiens
1284	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	97	KVSREKAKKMI/AASWIFD	Homo sapiens
1285	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	98	DGRTVRRITMNIIVPRTKVK	Homo sapiens

1286	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	99	RRGMKETFCMSSMKC	Homo sapiens
1287	3855	G Protein-Coupled Receptor GPR19	AAB00316.1	100	KTITKDSIYDSFDREAKEKK	Homo sapiens
1288	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1152	ALLFSQDGGQREGQRRRC	Homo sapiens
1289	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1153	SGDEEDAYSAEPLPELC	Homo sapiens
1290	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1154	ALLLDTADLLAARERS	Homo sapiens
1291	3856	G Protein-Coupled Receptor GPR2/CCR10	P46092	1155	RRLLRGGSSPSGPQPRRG	Homo sapiens
1292	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	101	KSGSRHHLSAGPHALIQ	Homo sapiens
1293	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	102	RTNASGLEVPLHFLARLDE	Homo sapiens
1294	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	103	SRPGLLHQGRQRRVRAMQ	Homo sapiens
1295	3857	G Protein-Coupled Receptor GPR20	AAC51302.1	104	GQHGEREPSSGDVSMHRSS	Homo sapiens
1296	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	105	SERQARFSSQSGETGEVQAC	Homo sapiens
1297	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	106	DPYTVRSKGPLNGC	Homo sapiens
1298	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	107	NSTLDGNQSSHPFCLL	Homo sapiens
1299	3858	G Protein-Coupled Receptor GPR21	AAC51303.1	108	CASQITANDPYTVRSK	Homo sapiens
1300	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	109	EINMQSESNTVRDDIDD	Homo sapiens
1301	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	111	RRAVKRHRERRERQKRVFRM	Homo sapiens
1302	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	112	TRQKFKQKVLKSKMIKKR	Homo sapiens
1303	3859	G Protein-Coupled Receptor GPR22	AAC51304.1	113	DPKRNNKKTIFEDSEIREKR	Homo sapiens
1304	3860	G Protein-Coupled Receptor SLIC/MCH1	AAH01736.1	1532	CAPGQGGRRWRILPQPAWVEG	Homo sapiens
1305	3860	G Protein-Coupled	AAH01736.1	1533	EASLLPTGPNASNTSDGPDN	Homo sapiens

1306	3860	Receptor SLC/MCH1	AAH01736.1	1539	KEGVGRAVGLGGSGCQATE	Homo sapiens
1307	3860	G Protein-Coupled Receptor SLC/MCH1	AAH01736.1	1565	RMTSSVAPASQRSIRLRTKR	Homo sapiens
1308	3860	G Protein-Coupled Receptor SLC/MCH1	AAH01736.1	1567	RAVSNAQTADEERTESKG	Homo sapiens
1309	3861	G Protein-Coupled Receptor SLC/MCH1	O00155	376	RGLQLPGGQDSQCGEEP	Homo sapiens
1310	3861	Receptor GPR25	O00155	377	CRISRRRLRRPPHVGRARRNS	Homo sapiens
1311	3861	G Protein-Coupled Receptor GPR25	O00155	378	RTGRLARRISSASSLSRDD	Homo sapiens
1312	3861	G Protein-Coupled Receptor GPR25	O00155	483	DYSGLDGLEELELCPCAGD	Homo sapiens
1313	3862	Receptor GPR25	AAB60402.1	118	TVYCLLGDAHSPLYT	Homo sapiens
1314	3862	G Protein-Coupled Receptor GPR3	AAB60402.1	119	EGPTGPAAPLPSPKAWD	Homo sapiens
1315	3862	G Protein-Coupled Receptor GPR3	AAB60402.1	120	HFAAVFCIGSAEMSL	Homo sapiens
1316	3862	G Protein-Coupled Receptor GPR3	AAB60402.1	121	GLITCGVVYPLSKNH	Homo sapiens
1317	3863	G Protein-Coupled Receptor GPR3	O00270	1157	REPEKQPKLQRAQALVTLV	Homo sapiens
1318	3863	G Protein-Coupled Receptor GPR31	O00270	1158	CHSFYSRADGFSIIWQEA	Homo sapiens
1319	3863	G Protein-Coupled Receptor GPR31	O00270	1159	QNLGSCRALCAVAHTSDVTG	Homo sapiens
1320	3863	G Protein-Coupled Receptor GPR31	O00270	1160	SPTFRSSVRRVFHTLRGKGQ	Homo sapiens
1321	3864	G Protein-Coupled Receptor GPR31	AAA98457.1	143	DELFRDRVNHTECFEKFPMIE	Homo sapiens
1322	3864	Receptor GPR4	AAA98457.1	144	LRAVRGVSSTERQEKAKIKR	Homo sapiens
1323	3864	G Protein-Coupled Receptor GPR4	AAA98457.1	145	RSDVAKALHNLLRFLASDK	Homo sapiens
1324	3864	G Protein-Coupled Receptor GPR4	AAA98457.1	146	NASLTLEPLISKRNSTAK	Homo sapiens

1325	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	166	FQYLPSETVSLTVG	Homo sapiens
1326	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	167	CLAERAAACSVVRPLARSH	Homo sapiens
1327	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	168	HLVVRICQVWRHAH	Homo sapiens
1328	3866	G Protein-Coupled Receptor GPR6	AAA91631.1	169	EIQRALWLLCGCFQSK	Homo sapiens
1329	3867	G Protein-Coupled Receptor GPR6	AAC50197.1	171	ATAESRRVAGRTYSAAR	Homo sapiens
1330	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	172	RLDDEQGRRCQCVLVPQPE	Homo sapiens
1331	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	173	RLHAMRLDSHAKALERAKKR	Homo sapiens
1332	3867	G Protein-Coupled Receptor GPR7	AAC50197.1	174	DASFRRNLRLQLTC	Homo sapiens
1333	3868	G Protein-Coupled Receptor GPR7	AAC50198.1	175	NVSQDNGTGHNAITSEP	Homo sapiens
1334	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	176	RSRHMPWRTYRGAKVAS	Homo sapiens
1335	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	177	VLRLSGAKALGKARRK	Homo sapiens
1336	3868	G Protein-Coupled Receptor GPR8	AAC50198.1	178	LDDNFRKNFRSILRC	Homo sapiens
1337	3869	G Protein-Coupled Receptor HM74	BAA01721.1	179	QDHFLEIDKKNCVFRDD	Homo sapiens
1338	3869	G Protein-Coupled Receptor HM74	BAA01721.1	180	ARIWLSLRQRQMDRHAKIKR	Homo sapiens
1339	3869	G Protein-Coupled Receptor HM74	BAA01721.1	181	CLQRKMTGEPDNNRSTSV	Homo sapiens
1340	3869	G Protein-Coupled Receptor HM74	BAA01721.1	182	DPNKTRGAPEALMANSGE	Homo sapiens
1341	3869	G Protein-Coupled Receptor HM74	BAA01721.1	183	SNHSHKKGHCHEPASLEKQ	Homo sapiens
1342	3869	G Protein-Coupled Receptor HM74	BAA01721.1	1453	RQRQMDRHAKIKRAITFIMV	Homo sapiens
1343	3869	G Protein-Coupled Receptor HM74	BAA01721.1	1454	SPSYLGPTSNHSHKKG	Homo sapiens
1344	3870	G Protein-Coupled Receptor HM74	Q15743	1192	AVRRSHGTQKSRKDQI	Homo sapiens

1345	3870	Receptor OGR1	Q15743	1193	LMHEEVIEDENQHRVC	Homo sapiens
1346	3870	G Protein-Coupled Receptor OGR1	Q15743	1194	CFVSETHRDRLRLRG	Homo sapiens
1347	3870	G Protein-Coupled Receptor OGR1	Q15743	1195	CSRTGRAREAYPLGAPEASG	Homo sapiens
1348	3921	Prostaglandin Receptor	P43119	1188	CRMVQQKRHQGSLGPRPRT	Homo sapiens
1349	3921	Prostaglandin Receptor	P43119	1189	CFTQAVAPDSSEMMD	Homo sapiens
1350	3921	Prostaglandin Receptor	P43119	1190	ASGRDRPRAPVPGKEGSC	Homo sapiens
1351	3921	Prostaglandin Receptor	P43119	1191	SAWGEGQVEPLPTQQ	Homo sapiens
1352	3923	Prostaglandin D2 Receptor	Q13258	458	KSPFYRCQNTSVEKGN SAV	Homo sapiens
1353	3923	Prostaglandin D2 Receptor	Q13258	459	RNLVAMHRRRLQRIHPRSC	Homo sapiens
1354	3923	Prostaglandin D2 Receptor	Q13258	503	CAEPRADGREASQPLEEL	Homo sapiens
1355	3923	Prostaglandin D2 Receptor	Q13258	504	KDVKEKNRTSEEAEDLRALR	Homo sapiens
1356	3924	Prostaglandin E Receptor EP1	P34995	962	AQAAAGRLRRRSATTF	Homo sapiens
1357	3924	Prostaglandin E Receptor EP1	P34995	963	CVGVTRPLLHAARVSVARAR	Homo sapiens
1358	3924	Prostaglandin E Receptor EP1	P34995	964	CNTLSGLALHRARWRR	Homo sapiens
1359	3924	Prostaglandin E Receptor EP1	P34995	965	ASGPDSSRRRWGAHGPR	Homo sapiens
1360	3924	Prostaglandin E Receptor EP1	P34995	966	SGSARRARAHDMVEMVGQ	Homo sapiens
1361	3925	Prostaglandin E Receptor EP2	AAD44177.1	967	IALALLARRWRGDVGC	Homo sapiens
1362	3925	Prostaglandin E Receptor EP2	AAD44177.1	968	CETRQWLPPGESPAISSV	Homo sapiens
1363	3925	Prostaglandin E Receptor EP2	AAD44177.1	969	GPSLGSGRGGPGARRRGE	Homo sapiens
1364	3925	Prostaglandin E Receptor EP2	AAD44177.1	971	NETSSRKEKWDLQALR	Homo sapiens
1365	3926	Prostaglandin E2 Receptor EP3	CAB52459.1	972	ERSAEARGNLTRPPGSGEDC	Homo sapiens
1366	3926	Prostaglandin E2 Receptor EP3	CAB52459.1	973	SRSYRRRESKRKKSFLLC	Homo sapiens
1367	3926	Prostaglandin E2 Receptor	CAB52459.1	974	CRAKATASQSSAQWGR	Homo sapiens

1368	3926	EP3 Prostaglandin E2 Receptor EP3	CAB52459.1	975	KFCQVANAVSSCSNDGQ	Homo sapiens
1369	3927	Prostaglandin E Receptor EP4	P35408	382	RLSDFRRRRSFRRIAGAE	Homo sapiens
1370	3927	Prostaglandin E Receptor EP4	P35408	383	EREVSKNPDLQAIRAS	Homo sapiens
1371	3927	Prostaglandin E Receptor EP4	P35408	384	DSQRTSSAMSGHSRFSIRE	Homo sapiens
1372	3927	Prostaglandin E Receptor EP4	P35408	385	RTLRISETSDSSQGQDSE	Homo sapiens
1373	3928	Prostaglandin F2-alpha Receptor	P43088	1046	ILMKAYQRFRQKSKAS	Homo sapiens
1374	3928	Prostaglandin F2-alpha Receptor	P43088	1047	ASDKEWIRFDQSNVLC	Homo sapiens
1375	3928	Prostaglandin F2-alpha Receptor	P43088	1048	TKPIFHSTKITSKHVK	Homo sapiens
1376	3928	Prostaglandin F2-alpha Receptor	P43088	1049	CFYNTEDIKDWDREFY	Homo sapiens
1377	3928	Prostaglandin F2-alpha Receptor	P43088	1050	RVKFKSQQHRQGRSHHLE	Homo sapiens
1378	4051	Proteinase-Activated Receptor 2	AAB47871.1	252	QGTNRSSKGRSLIGKVDGTS	Homo sapiens
1379	4051	Proteinase-Activated Receptor 2	AAB47871.1	253	QRYWVIVNPMIGHSRKKAN	Homo sapiens
1380	4051	Proteinase-Activated Receptor 2	AAB47871.1	255	SHDFRDHAKNALLCRSVR	Homo sapiens
1381	4051	Proteinase-Activated Receptor 2	AAB47871.1	256	VSLTSKKHSRKSSSYS	Homo sapiens
1382	4052	Proteinase-Activated Receptor 3	AAC51218.1	257	ENDTNNLAKPTLPIKTFR	Homo sapiens
1383	4052	Proteinase-Activated Receptor 3	AAC51218.1	258	CPEESASHLHVKNATMG	Homo sapiens
1384	4052	Proteinase-Activated Receptor 3	AAC51218.1	260	QPDITTCCHDVHNTCESSSP	Homo sapiens
1385	4052	Proteinase-Activated Receptor 3	AAC51218.1	261	MSKTRNHSTAYLTJK	Homo sapiens
1386	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	88	RDHKSGETPANVFLMH	Homo sapiens

1387	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	90	RSLRQGLRVEKRLTKAVR	Homo sapiens
1388	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	91	RSHGASCATQRILALNR	Homo sapiens
1389	4090	G Protein-Coupled Receptor GPR17	CAB08108.1	92	FEGKTNESSLSAKSE	Homo sapiens
1390	4254	Rhodopsin	P08100	1051	RNCMLTICCGKNPLGD	Homo sapiens
1391	4254	Rhodopsin	P08100	1052	CGIDYYTLKPEVNNEFVI	Homo sapiens
1392	4254	Rhodopsin	P08100	1053	CWVPYASVAFYIFTHQGSN	Homo sapiens
1393	4254	Rhodopsin	P08100	1055	VLGGFTSLYTSLHGY	Homo sapiens
1394	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1042	ATSSLLRRWPYGSDDGC	Homo sapiens
1395	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1043	CTLDYSKGDNRNFTSFL	Homo sapiens
1396	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1044	MEQKLGKSGHLQVNNTI	Homo sapiens
1397	4284	Retinal G Protein-Coupled Receptor RPE	P47804	1045	MVCRGIWQCLSPQKRE	Homo sapiens
1398	4321	Secretin Receptor	P47872	950	CLQELSRQGTGDLGTEQ	Homo sapiens
1399	4321	Secretin Receptor	P47872	951	CPRFLRMLTSRNGSLFRN	Homo sapiens
1400	4321	Secretin Receptor	P47872	952	CGVNVNDSSNEKRHSY	Homo sapiens
1401	4321	Secretin Receptor	P47872	954	KDAVLFSSDDVTYCDAAH	Homo sapiens
1402	4321	Secretin Receptor	P47872	956	MIRKLRTQETRGNEVSH	Homo sapiens
1403	4480	Somatostatin Receptor Type 1	P30872	994	EEPGRNASQNGTLSEG	Homo sapiens
1404	4480	Somatostatin Receptor Type 1	P30872	996	CLSWMIDNAAEEPVDY	Homo sapiens
1405	4480	Somatostatin Receptor Type 1	P30872	997	EDFQPENLES GG VFRNGTC	Homo sapiens
1406	4480	Somatostatin Receptor Type 1	P30872	2616	LSVDAVNMFTSYC	Homo sapiens
1407	4480	Somatostatin Receptor Type 1	P30872	2618	RAYSVEDFQPENILES	Homo sapiens
1408	4481	Somatostatin Receptor Type 2	P30874	998	RSNQWGRSSCTINWPGE	Homo sapiens
1409	4481	Somatostatin Receptor Type 2	P30874	999	KVKSSGIRVGSSKRKKSE	Homo sapiens
1410	4481	Somatostatin Receptor Type	P30874	1000	CLVKVSGTDDGERSDS	Homo sapiens

1411	4481	2	Somatostatin Receptor Type P30874	1001	KQDKSRLNETTETQRT	Homo sapiens
1412	4481	2	Somatostatin Receptor Type P30874	2276	DMADEPLNGSHTWLSIP	Homo sapiens
1413	4482	2	Somatostatin Receptor Type P32745	1002	KVRSAGRRVWAPSCQR	Homo sapiens
1414	4482	3	Somatostatin Receptor Type P32745	2622	REGGKGKEMNGRVSQI	Homo sapiens
1415	4482	3	Somatostatin Receptor Type P32745	2624	TTSEPENASSAWPPD	Homo sapiens
1416	4482	3	Somatostatin Receptor Type P32745	2626	QPGTSGQERPPSRVA	Homo sapiens
1417	4483	3	Somatostatin Receptor Type P31391	1007	IFADTRPARGGQAVAC	Homo sapiens
1418	4483	4	Somatostatin Receptor Type P31391	1008	CLLEGAGGAEEEPDLY	Homo sapiens
1419	4483	4	Somatostatin Receptor Type P31391	2627	KMRAVALRAGWQQRR	Homo sapiens
1420	4483	4	Somatostatin Receptor Type P31391	2631	CRAVLSVDGLNMFTSV	Homo sapiens
1421	4483	4	Somatostatin Receptor Type P31391	2633	CLVGLVGNALVIFVIL	Homo sapiens
1422	4484	4	Somatostatin Receptor Type NP_001044.1	2637	SLPLLVFADVQEGGTC	Homo sapiens
1423	4484	5	Somatostatin Receptor Type NP_001044.1	2638	CLRKGSGAKDADATEP	Homo sapiens
1424	4484	5	Somatostatin Receptor Type NP_001044.1	2639	RIRQQQEATPPAHRAAA	Homo sapiens
1425	4484	5	Somatostatin Receptor Type NP_001044.1	2643	RVAKLASAAAWVLSLC	Homo sapiens
1426	4552	5	Tachykinin Receptor 1 AAA36641.1	1339	CMIEWPEHPNKIYKVV	Homo sapiens
1427	4552	5	Tachykinin Receptor 1 AAA36641.1	1340	CPFISAGDYEGLEMKSTRYL	Homo sapiens
1428	4552	5	Tachykinin Receptor 1 AAA36641.1	1341	KVSRLETITSTV/GAHEE	Homo sapiens
1429	4552	5	Tachykinin Receptor 1 AAA36641.1	1342	EPEDGPKATPSSDLTSNC	Homo sapiens
1430	4687	5	Thrombin Receptor P25116	1202	EDEEKNESGLTEYRLV	Homo sapiens
1431	4687	5	Thrombin Receptor P25116	2582	AVANRSKSKSRALFLSAAVFC	Homo sapiens
1432	4687	5	Thrombin Receptor P25116	2583	SINKSSPLQKQLPAFISE	Homo sapiens

1433	4687	Thrombin Receptor	P25116	2621	DPRSFLLRNPNDKYEFPWE	Homo sapiens
1434	4734	Thyrotropin Releasing Hormone Receptor	P34981	1196	PSDPKENSKTWKNDS	Homo sapiens
1435	4734	Thyrotropin Releasing Hormone Receptor	P34981	1197	CFNSTVSSRKQVTKMLA	Homo sapiens
1436	4734	Thyrotropin Releasing Hormone Receptor	P34981	1198	RAAFRKLNCNCKQKPT	Homo sapiens
1437	4734	Thyrotropin Releasing Hormone Receptor	P34981	1199	KPANYSVALNYSVIKE	Homo sapiens
1438	4734	Thyrotropin Releasing Hormone Receptor	P34981	1200	KESDHFSTELDDITVTD	Homo sapiens
1439	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1771	EIQKNKPRNDDIFKII	Homo sapiens
1440	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1772	SYRPSDNVSSSTKKPAPC	Homo sapiens
1441	4944	Angiotensin II Type 1 Receptor	NP_000676.1	1773	LNSSTEDGIKRIQDDC	Homo sapiens
1442	4946	Angiotensin II Type 2 Receptor	P50052	1321	CSQKPSDKHLDAPIL	Homo sapiens
1443	4946	Angiotensin II Type 2 Receptor	P50052	1322	DRYQSVIYPFLSQRRN	Homo sapiens
1444	4946	Angiotensin II Type 2 Receptor	P50052	1323	RKHLTKTNSYGKNRITRD	Homo sapiens
1445	4946	Angiotensin II Type 2 Receptor	P50052	1324	RVPIITWLQGKRESMSC	Homo sapiens
1446	5072	Pyrimidinergic Receptor P2Y4	P51582	1142	CHDTRPEEFDHYVHFSSA	Homo sapiens
1447	5072	Pyrimidinergic Receptor P2Y4	P51582	1145	YLLIGDKYRRQLRQLC	Homo sapiens
1448	5072	Pyrimidinergic Receptor P2Y4	P51582	2696	HPLRALRWGRPRLAG	Homo sapiens
1449	5072	Pyrimidinergic Receptor P2Y4	P51582	2697	HITRTIYVLARLLEADC	Homo sapiens
1450	5117	Vasopressin V1A Receptor	AAA62271.1	262	REAALGEGNGPPRDVRNEE	Homo sapiens
1451	5117	Vasopressin V1A Receptor	AAA62271.1	263	NVRGKTASRQSKGAEQ	Homo sapiens
1452	5117	Vasopressin V1A Receptor	AAA62271.1	264	QNMKEFNKEDTDSMSRRQ	Homo sapiens
1453	5117	Vasopressin V1A Receptor	AAA62271.1	265	RQTFYSNNRSPNTSTGMWKD	Homo sapiens
1454	5118	Vasopressin V1B Receptor	AAA65687.1	266	NATTPWLGRDEELAKVE	Homo sapiens
1455	5118	Vasopressin V1B Receptor	AAA65687.1	267	TRGLPSRVSSINTISRAKIR	Homo sapiens

1456	5118	Vasopressin V1B Receptor	AAA65687.1	268	QPRMRRRLSDGSLSRH	Homo sapiens
1457	5118	Vasopressin V1B Receptor	AAA65687.1	269	ESPRDLELDGEGTAET	Homo sapiens
1458	5119	Vasopressin V2 Receptor	CAA77746.1	270	SNSSQERPLDTRDPLARAE	Homo sapiens
1459	5119	Vasopressin V2 Receptor	CAA77746.1	271	RHGSGAHWNRPVLVAWAFS	Homo sapiens
1460	5119	Vasopressin V2 Receptor	CAA77746.1	272	CQVLIFREIHASLVPGPSER	Homo sapiens
1461	5119	Vasopressin V2 Receptor	CAA77746.1	273	RGRTPPSLGPQDESC	Homo sapiens
1462	5133	Peropsin	O14718	1147	KNEDGSVFSQTEHNIV	Homo sapiens
1463	5133	Peropsin	O14718	1148	IKYKELRTPTNAIIIN	Homo sapiens
1464	5133	Peropsin	O14718	1149	RKNDRSFVSYTMTVIA	Homo sapiens
1465	5133	Peropsin	O14718	1150	CTESLNIRDWSDQIDVTK	Homo sapiens
1466	5133	Peropsin	O14718	1151	VANKKFRRAMLAMFKC	Homo sapiens
1467	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	987	CGPAGRTSSRSQSLSRSDAR	Homo sapiens
1468	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	988	EENRDKWEEAQLAGPN	Homo sapiens
1469	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	989	CRVVDRQEEGNGDSGG	Homo sapiens
1470	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	990	KRDKAPKSSFVGDGDI	Homo sapiens
1471	5519	Brain-Specific Angiogenesis Inhibitor 1	O14514	991	RKLQHAAEKDKEVLGP	Homo sapiens
1472	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	981	CLRPSPEEAVAQAESEVGR	Homo sapiens
1473	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	982	GSSNDLFTTEMRYGEE	Homo sapiens
1474	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	983	MARDGISDKSKKQRAQSERC	Homo sapiens
1475	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	984	EDAPRARPEGTPRRAAK	Homo sapiens
1476	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	985	RSRTMPRTVPGSTMKMGSL	Homo sapiens
1477	5520	Brain-Specific Angiogenesis Inhibitor 2	O60241	986	KREKRWSVSSGGAAERSVC	Homo sapiens
1478	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	976	RRVFPTNFPGLQKKGE	Homo sapiens
1479	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	977	CNLTREAKRPPKEEFG	Homo sapiens
1480	5521	Brain-Specific Angiogenesis Inhibitor 3	O60242	978	KLKHRAGQMSEPHSGLTKC	Homo sapiens

1481	5521	Inhibitor 3	Brain-Specific Angiogenesis Inhibitor 3	O60242	979	CTDDNLRGADMDIVHPQER	Homo sapiens
1482	5521	Brain-Specific Angiogenesis Inhibitor 3	Brain-Specific Angiogenesis Inhibitor 3	O60242	980	SRSETGSTISMSSLERR	Homo sapiens
1483	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1101	NDSSQEEHQDFLQFSK	Homo sapiens
1484	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1102	KATKAYNQQAARMTWG	Homo sapiens
1485	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1103	KTL LHAGGFQKHRS LK	Homo sapiens
1486	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1104	SLKFRKNFWKL VKDIGC	Homo sapiens
1487	6031	SIV/HIV Receptor BONZO	SIV/HIV Receptor BONZO	O00574	1105	KSSEDNSKTFASAHNV	Homo sapiens
1488	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	66	ERHRSVMAVQLHSRLPRGR	Homo sapiens
1489	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	67	RRRVQRMAEHV SCHPRYRE	Homo sapiens
1490	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	68	NAAVYSCRD AEMRRTRRR	Homo sapiens
1491	6204	Lysophosphatidic Acid Receptor Edg4	Lysophosphatidic Acid Receptor Edg4	AAC27728.1	69	RQSTRESVHYTSSAQGGAST	Homo sapiens
1492	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	38	YSQYQFWKNFGTLK	Homo sapiens
1493	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	39	QQEAPERASSVYTRSTGEQE	Homo sapiens
1494	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	40	RSQKEGLHYTCSHFYPSQ	Homo sapiens
1495	6213	C-C Chemokine Receptor 5	C-C Chemokine Receptor 5	AAC50598.1	309	MDYQVSSPIVDINYYTSEPC	Homo sapiens
1496	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1092	EDEYDVLIEGELESDEAEQC	Homo sapiens
1497	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1093	KGNFFSARRRVP CGIITSVL	Homo sapiens
1498	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1094	MRKTLRFREQRYSLFKLVFA	Homo sapiens
1499	6363	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	Chemokine (C-C motif) Receptor-like 2 (CCRL2)	O00421	1096	RSNIPLQPRGQSAQGSRE	Homo sapiens
1500	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	127	GPGNSARDVLRARAPREEQG	Homo sapiens
1501	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	129	DPGGPRRGNSINRRVR LKNP	Homo sapiens
1502	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	130	LRQLSKEDLGFSGRAPAERC	Homo sapiens
1503	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	131	PRGAVISGRSQEQSVKTVPG	Homo sapiens
1504	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	AAC51281.1	1781	CIQKSSVTSDDDNDNEYTTE	Homo sapiens
1505	6446	Pael Receptor (GPR37)	Pael Receptor (GPR37)	NP_005293.1	1806	CIQKSSVTSDDDNDNEYTTE	Homo sapiens
1506	6536	Putative Neurotransmitter Receptor (PNR)	Putative Neurotransmitter Receptor (PNR)	O14804	319	TDVVETRLSQWLEEMPC	Homo sapiens

1507	6536	Putative Neurotransmitter Receptor (PNR)	O14804	320	KSLAGAAKHERKAAKT	Homo sapiens
1508	6536	Putative Neurotransmitter Receptor (PNR)	O14804	321	RKALKLTLSQKVFSPTIR	Homo sapiens
1509	6536	Putative Neurotransmitter Receptor (PNR)	O14804	485	HPAAFCYQVNGSCPR	Homo sapiens
1510	6777	G Protein-Coupled Receptor TM7SF1	O60478	788	KAKSKYSPELLKYRLP	Homo sapiens
1511	6777	G Protein-Coupled Receptor TM7SF1	O60478	790	KTGNWERKVVSVRVA	Homo sapiens
1512	6777	G Protein-Coupled Receptor TM7SF1	O60478	791	KSVHSFDYDWNVSDQAD	Homo sapiens
1513	6777	G Protein-Coupled Receptor TM7SF1	O60478	792	RVRNPTKDLINPGMVP	Homo sapiens
1514	6777	G Protein-Coupled Receptor TM7SF1	O60478	793	RYDSDDDLAWNIA PQGLQ	Homo sapiens
1515	6853	Purinergic Receptor P2Y11	O43190	865	PTLSFHLKRPQQGAGNC	Homo sapiens
1516	6853	Purinergic Receptor P2Y11	O43190	866	GALGRAVLRSPGMTVAE	Homo sapiens
1517	6853	Purinergic Receptor P2Y11	O43190	867	MRVLNVDARRRWSTRC	Homo sapiens
1518	6853	Purinergic Receptor P2Y11	O43190	868	CPGYRDSWNPEDAKSTGQA	Homo sapiens
1519	6853	Purinergic Receptor P2Y11	O43190	2299	CPANFLAAADDKLSGFQGD	Homo sapiens
1520	6853	Purinergic Receptor P2Y11	O43190	2300	ASNGLALYRFSIRKQR	Homo sapiens
1521	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	137	CNRSSTRHHEGPETSN	Homo sapiens
1522	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	139	PNQIRIRIMAAAKPKHD	Homo sapiens
1523	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	140	EKRLRVHAHSTDSAR	Homo sapiens
1524	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	141	VQRPLLFASRRQSSARTEK	Homo sapiens
1525	6921	G Protein-Coupled Receptor GPR39	AAC26082.1	142	QSEAEPPQSKSQSLLESLEP	Homo sapiens
1526	7221	Galanin Receptor GalR2	AAC39634.1	197	NLTVCHPAWSAPRRRAMD	Homo sapiens
1527	7221	Galanin Receptor GalR2	AAC39634.1	198	RAVDPVAAAGSGARRAKRK	Homo sapiens
1528	7221	Galanin Receptor GalR2	AAC39634.1	199	GRAPGRASGRVCAARG	Homo sapiens
1529	7221	Galanin Receptor GalR2	AAC39634.1	200	ERESDLLHMSEAAAGALRPC	Homo sapiens
1530	7246	Orexin Receptor 1	AAC39601.1	235	DQLGDLEQGLSGEPQP	Homo sapiens
1531	7246	Orexin Receptor 1	AAC39601.1	236	EPSATPGAQMGMVPPGSR	Homo sapiens

1532	7246	Orexin Receptor 1	AAC39601.1	237	KRPDQLGDLQGLSGEPQ	Homo sapiens
1533	7246	Orexin Receptor 1	AAC39601.1	239	KAPSPRSSASHKSLQSRC	Homo sapiens
1534	7247	Orexin Receptor 2	AAC39602.1	240	SELNETQEPFLNPTDYDDEE	Homo sapiens
1535	7247	Orexin Receptor 2	AAC39602.1	241	KWKPLQPVSQPRGPGQ	Homo sapiens
1536	7247	Orexin Receptor 2	AAC39602.1	242	TKSRMSAVAAEIKQIRA	Homo sapiens
1537	7247	Orexin Receptor 2	AAC39602.1	243	RQEDRLTRGRTSTESRKS	Homo sapiens
1538	8436	Platelet-Activating Factor Receptor	P25105	1097	AVTRPIKTAQANTRKR	Homo sapiens
1539	8436	Platelet-Activating Factor Receptor	P25105	1098	DSINTVPSAGSGNVTRC	Homo sapiens
1540	8436	Platelet-Activating Factor Receptor	P25105	1099	QQRNAEVKRRALWMVC	Homo sapiens
1541	8436	Platelet-Activating Factor Receptor	P25105	1100	KKFRKHLTEKFYSMRSRKC	Homo sapiens
1542	8509	G Protein-Coupled Receptor Ls8509	Q14439	398	DRYYSVLYPLERKISDAKSR	Homo sapiens
1543	8509	G Protein-Coupled Receptor Ls8509	Q14439	400	DEESEAKYIGSADFQAKE	Homo sapiens
1544	8509	G Protein-Coupled Receptor Ls8509	Q14439	401	ETRNSKKRLPLGNTPPEE	Homo sapiens
1545	8509	G Protein-Coupled Receptor Ls8509	Q14439	402	ELIQTQPKVGRVERKMSR	Homo sapiens
1546	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1078	KKQRKAGNFTSILIAN	Homo sapiens
1547	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1079	FRNLSLPTDLYTHQVAC	Homo sapiens
1548	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1080	CVENWPSKKDRLLFT	Homo sapiens
1549	8896	Neuropeptide Y Receptor Type 6 Pseudogene	Q99463	1081	CLRRRNKVDKKKENEGR	Homo sapiens
1550	9421	Neuropeptide Y Receptor Type 1	P25929	1064	DEPFQNVTLDAYKDKYVC	Homo sapiens
1551	9421	Neuropeptide Y Receptor Type 1	P25929	1065	CYFKIYIRLKRNNNMMDK	Homo sapiens
1552	9421	Neuropeptide Y Receptor Type 1	P25929	1066	CDFRSRDDDYETIAMS	Homo sapiens
1553	9421	Neuropeptide Y Receptor Type 1	P25929	1498	ENDDCHLPLAMIFTLALA	Homo sapiens
1554	9421	Neuropeptide Y Receptor Type 1	P25929	2291	SNFSEKNAQILLAFENDDC	Homo sapiens

1555	9834	Type 1 Corticotropin releasing factor Receptor 1	NP_004373.1	1778	CESLSLASISDNGVRE	Homo sapiens
1556	9834	Corticotropin releasing factor Receptor 1	NP_004373.1	1779	CQEILNEEKSKVHYHVA	Homo sapiens
1557	10457	Frizzled-2	NP_001457.1	1774	NHSEDGAPALLTAPP	Homo sapiens
1558	10457	Frizzled-2	NP_001457.1	1775	GGAPPRYATLEHPFHC	Homo sapiens
1559	10457	Frizzled-2	NP_001457.1	1776	CEPARPDGSMFFSQEE	Homo sapiens
1560	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1082	AAREAGAAVRRPLGPE	Homo sapiens
1561	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1083	LYRRPPREKIGRRRA	Homo sapiens
1562	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1085	PRELAAGQSFHGCLYR	Homo sapiens
1563	11968	Putative Leukocyte Platelet- Activating Factor Receptor (HUMNPILY20)	AAB97766.1	1086	CKTVRLSDVRV/RPVNTYAR	Homo sapiens
1564	14198	Interleukin-8 Receptor B	P25025	802	EDFWKGEDLSNYSYS	Homo sapiens
1565	14198	Interleukin-8 Receptor B	P25025	803	PPFLDDAAPCEPESLE	Homo sapiens
1566	14198	Interleukin-8 Receptor B	P25025	804	RRTVSSNVSPACYE	Homo sapiens
1567	14198	Interleukin-8 Receptor B	P25025	805	SKDSLPKDSRPSFVGS	Homo sapiens
1568	14641	Calcitonin Receptor	P30988	766	PKPFLYVVGRRKKMMDAQYKC	Homo sapiens
1569	14641	Calcitonin Receptor	P30988	769	VEVWPNGELVRRDPVSC	Homo sapiens
1570	14641	Calcitonin Receptor	P30988	771	KIQWNQIRWGRRPSNRS	Homo sapiens
1571	14641	Calcitonin Receptor	P30988	772	CHQEPRNEPANNGEESAE	Homo sapiens
1572	16041	C-C Chemokine Receptor 6	P51684	355	TKSFRILRSRTLPRSKIIC	Homo sapiens
1573	16041	C-C Chemokine Receptor 6	P51684	356	STFVFNQKYNTQGSVDCE	Homo sapiens
1574	16041	C-C Chemokine Receptor 6	P51684	357	TAANLKGMINRSCQSE	Homo sapiens
1575	16041	C-C Chemokine Receptor 6	P51684	358	RYSENISRQTSSETADNDNAS	Homo sapiens
1576	16599	Smoothed	NP_005622.1	2595	CPLAPPELHPPAPAP	Homo sapiens
1577	16599	Smoothed	NP_005622.1	2666	CAIVERERGWPDFLR	Homo sapiens
1578	16599	Smoothed	NP_005622.1	2667	CTNEVQNIKFNSSGQ	Homo sapiens
1579	16599	Smoothed	NP_005622.1	2668	CEVPLVRTDNPKSWYE	Homo sapiens
1580	16599	Smoothed	NP_005622.1	2669	CRADGTMRLGEPSTNE	Homo sapiens

1581	16599	Smoothed	NP_005622.1	2670	EAEISPELQKRLGRKK	Homo sapiens
1582	16599	Smoothed	NP_005622.1	2671	ANVTIGLPTKQPIIDC	Homo sapiens
1583	17250	G Protein-Coupled Receptor GPR45	O43898	1227	SNASDSGSTQLPAPLR	Homo sapiens
1584	17250	G Protein-Coupled Receptor GPR45	O43898	1228	CVLGYTELPADRAYVV	Homo sapiens
1585	17250	G Protein-Coupled Receptor GPR45	O43898	1249	LNTVRKNAVRVHNGSD	Homo sapiens
1586	17250	G Protein-Coupled Receptor GPR45	O43898	1272	KVPERIRRIQIPSTVYC	Homo sapiens
1587	17250	G Protein-Coupled Receptor GPR45	O43898	1273	DSLDRQLTRAGLRRL	Homo sapiens
1588	17345	G Protein-Coupled Receptor D6	LR13	363	EDADAENSSFYVYDYLDE	Homo sapiens
1589	17345	G Protein-Coupled Receptor D6	LR13	364	DKYLEIVHAQPYHRLRTR	Homo sapiens
1590	17345	G Protein-Coupled Receptor D6	LR13	365	CVLVRLRPAGQGALK	Homo sapiens
1591	17345	G Protein-Coupled Receptor D6	LR13	366	DLGERQSENYPNKEDVGNK	Homo sapiens
1592	17535	Gaba(b) Receptor 1	O95375	188	EKLTKRLKRHPETGGFQEA	Homo sapiens
1593	17535	Gaba(b) Receptor 1	O95375	189	KKEEKKWRTKLEPWK	Homo sapiens
1594	17535	Gaba(b) Receptor 1	O95375	190	DPLHRTIETFAKEPKEDID	Homo sapiens
1595	17535	Gaba(b) Receptor 1	O95375	191	YEIEYVCRGEREVVGPVKRK	Homo sapiens
1596	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1205	SLWETVQKWREYRRQC	Homo sapiens
1597	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1206	LQKDNSSLPWRDLSEC	Homo sapiens
1598	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1208	CIVVSKLKANLMCKTD	Homo sapiens
1599	17666	Glucagon-Like Peptide 1 Receptor	AAA17021.1	1209	RWRLEHLHIQRDSSMKPLKC	Homo sapiens
1600	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1520	CQVDETEEPDVHLPQP	Homo sapiens
1601	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1521	REGLEAAGAGASAAASYSS	Homo sapiens
1602	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1522	KLPSARAKIRITSSPI	Homo sapiens
1603	18471	G Protein-Coupled Receptor LOC51210	NP_057456.1	1523	ESKSSIKRVLAITTVLS	Homo sapiens

1604	18471	Receptor LOC51210 G Protein-Coupled	NP_057456.1	1524	QGTEILYPD AHLSAED	Homo sapiens
1605	18471	Receptor LOC51210 G Protein-Coupled	NP_057456.1	1525	PKTPLKERISLPSRRS	Homo sapiens
1606	19072	Receptor LOC51210 G Protein-Coupled	ENSP00000164265	2030	SVVQLRRQRPFDFEWNEGLC	Homo sapiens
1607	19072	Receptor Ls19072 G Protein-Coupled	ENSP00000164265	2032	PAVGWHDTSERFYTHGC	Homo sapiens
1608	19072	Receptor Ls19072 G Protein-Coupled	ENSP00000164265	2047	AVQVGRQADRRRAFTVPT	Homo sapiens
1609	19501	Receptor Ls19072 G Protein-Coupled	Q9UIZ3	1513	EHEPAGEEALRQKRAVATK	Homo sapiens
1610	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1514	ALRQKRAVATKSPTAE	Homo sapiens
1611	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1515	CEKEVLSSNVSWRYEEQQLE	Homo sapiens
1612	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1518	RLANNTGGWDSSGCYVEEGD	Homo sapiens
1613	19501	Receptor KIAA0758 G Protein-Coupled	Q9UIZ3	1519	CKQEKSSLFQISKSIG	Homo sapiens
1614	21632	Receptor KIAA0758 G Protein-Coupled	BAA96055.1	2164	CTAFQRREGGVPGRPGSPG	Homo sapiens
1615	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2166	APGTRASRRCDRAGRWE	Homo sapiens
1616	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2167	CPAERVANNRGDFRWPR	Homo sapiens
1617	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2171	QNPPEPEPPADQQLRFRC	Homo sapiens
1618	21632	Receptor Ls21632 G Protein-Coupled	BAA96055.1	2175	VPLGGGAPGTRASRRRC	Homo sapiens
1619	22315	Receptor Ls21632 G Protein-Coupled	LR29	425	PAARVHRPSCRCRYRD	Homo sapiens
1620	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	426	TLARPDATQSGRRRKTVRL	Homo sapiens
1621	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	427	RSKLVAASVPARDRVRG	Homo sapiens
1622	22315	Receptor GPR92/GPR93 G Protein-Coupled	LR29	428	AQSERSAVTTDATRPD	Homo sapiens
		Receptor GPR92/GPR93				

1623	22925	Latrophilin-3	O94867	1138	CSGKSTESSIGSGKTSGSR	Homo sapiens
1624	22925	Latrophilin-3	O94867	1140	ENHQPHHYTRRRIPQD	Homo sapiens
1625	22925	Latrophilin-3	O94867	1141	ESVTSTQTEPPPAKC	Homo sapiens
1626	22925	Latrophilin-3	O94867	1497	SSASLNREGLLNARD	Homo sapiens
1627	25359	G Protein-Coupled Receptor GPR34	O95853	1255	DRYIKINRSIQQRKAIT	Homo sapiens
1628	25359	G Protein-Coupled Receptor GPR34	O95853	1257	CFHYRDKHNKAGEAFN	Homo sapiens
1629	25359	G Protein-Coupled Receptor GPR34	O95853	1258	RISKRRSKFPNSGKYA	Homo sapiens
1630	25359	G Protein-Coupled Receptor GPR34	O95853	1259	CQLLFRRFQGEPSRSESTSE	Homo sapiens
1631	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2721	RLQEILTFEKINKTR	Homo sapiens
1632	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2722	KGKSRAAENASLGPTN	Homo sapiens
1633	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2723	LLFGTIMDHKIRDALR	Homo sapiens
1634	30698	G Protein-Coupled Receptor Ls30698	CAC27252.1	2724	RPSIGSSKSQDVIMIRI	Homo sapiens
1635	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1579	KLPNNELHGQESHNSGN	Homo sapiens
1636	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1580	SGNRSDGPGKNTLHNEFD	Homo sapiens
1637	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1581	RQFISQSSRRKRKHNSIR	Homo sapiens
1638	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1582	SHLDRLDDESAQKILYYC	Homo sapiens
1639	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1584	CRFSRRLFKKSNIRTRSE	Homo sapiens
1640	30875	G Protein-Coupled Receptor GPR87/GPR95	NP_076404.1	1585	ESIRSLQSVRRSEVRIVYD	Homo sapiens
1641	31568	G Protein-Coupled Receptor RE2	O75963	331	CRKELSNLTEEEGGEGGV	Homo sapiens
1642	31568	G Protein-Coupled Receptor RE2	O75963	332	EEDAQRGTGRKNSSTSTSS	Homo sapiens
1643	31568	G Protein-Coupled Receptor RE2	O75963	333	CFGDRWYREPFVQRQRTSR	Homo sapiens
1644	31568	G Protein-Coupled Receptor RE2	O75963	334	HSSSTGDTGFSCSQDSGNL	Homo sapiens

1645	36534	Receptor RE2	075473	1232	CQKLQKIDLRHNEYEKVD	Homo sapiens
1646	36534	G Protein-Coupled Receptor GPR49	075473	1233	NKGDNSSMDDLHKDA	Homo sapiens
1647	36534	G Protein-Coupled Receptor GPR49	075473	1234	QDERDLEDFLLDFFED	Homo sapiens
1648	36534	G Protein-Coupled Receptor GPR49	075473	1235	ERGFVVKYSAKFETKA	Homo sapiens
1649	36534	G Protein-Coupled Receptor GPR49	075473	1236	RSKHPSLMSINSDDVEKQSC	Homo sapiens
1650	37498	Receptor GPR49	NP_004727.1	2597	DAQKESTGVTLRQRR	Homo sapiens
1651	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2600	CKKINQLISETEAVVTN	Homo sapiens
1652	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2610	ADDQTLLQMMMDQDDG	Homo sapiens
1653	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2672	KYNGSISLRPRLASQ	Homo sapiens
1654	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2673	KRYFAKFEKFFQTC	Homo sapiens
1655	37498	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	NP_004727.1	2674	DGDRQKAMKRLRVPL	Homo sapiens
1656	40881	Xenotropic and Polytropic Retrovirus Receptor (XPR1)	CAC28410.1	2103	RVRSGRVRVSSTRDFQDC	Homo sapiens
1657	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2105	CNNSVPGKEHPDITVMIRE	Homo sapiens
1658	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2106	APSKPGLPKPQATVPRKVD	Homo sapiens
1659	40881	Lung Seven Transmembrane Receptor 2 (LUSTR2)	CAC28410.1	2135	AASKPKSTPAVIQGPGSKD	Homo sapiens
1660	42697	Lung Seven Transmembrane Receptor 2 (LUSTR2)	O00406	1261	KRSELNKTQLTSETYFIMC	Homo sapiens
1661	42697	G Protein-Coupled Receptor GPR64	O00406	1262	GNASTERNGVSFSVQNGDVC	Homo sapiens
1662	42697	G Protein-Coupled Receptor GPR64	O00406	1263	CRIRKKKQLGAGRKTSIQD	Homo sapiens
1663	42697	G Protein-Coupled Receptor GPR64	O00406	1264	DFTGKQHMIFNEKEDSC	Homo sapiens

1664	45937	KIAA1624 Protein	AAK57695	2072	PNVNPASAGNQTKTQD	Homo sapiens
1665	45937	KIAA1624 Protein	AAK57695	2073	RVKSPPEAGTQLPKIFS	Homo sapiens
1666	45937	KIAA1624 Protein	AAK57695	2074	KDGYMVVNVSSLSNPEP	Homo sapiens
1667	45937	KIAA1624 Protein	AAK57695	2076	RSTVDSKAMGEKFSVHNNG	Homo sapiens
1668	50847	Neurotensin Receptor type 2	O95665	1265	CQPLRARSLLTPRTR	Homo sapiens
1669	50847	Neurotensin Receptor type 2	O95665	1266	GQKHELETADGEPEASRVC	Homo sapiens
1670	50847	Neurotensin Receptor type 2	O95665	1267	KKTFIQGGQVSLVRHKD	Homo sapiens
1671	50847	Neurotensin Receptor type 2	O95665	1269	CGEHHPMKRLPPKPQSP	Homo sapiens
1672	50847	Neurotensin Receptor type 2	O95665	2294	STSTPGSSTPSRIELLSEE	Homo sapiens
1673	50847	Neurotensin Receptor type 2	O95665	2301	METSSPRPRPPSSNPG	Homo sapiens
1674	50847	Neurotensin Receptor type 2	O95665	2302	CSQVPSTSTPGSSTPSR	Homo sapiens
1675	53440	G Protein-Coupled Receptor LS53440	LR76	1850	DPNGNESSATYFILG	Homo sapiens
1676	53440	G Protein-Coupled Receptor LS53440	LR76	1851	RHATVLTLPRTKIGV	Homo sapiens
1677	53440	G Protein-Coupled Receptor LS53440	LR76	1852	ILKTVLGLTREAAQAKA	Homo sapiens
1678	53440	G Protein-Coupled Receptor LS53440	LR76	1853	HRFSKRDRDSPLPVILAN	Homo sapiens
1679	53440	G Protein-Coupled Receptor LS53440	LR76	1854	KEIRQRILRLFHVATHASE	Homo sapiens
1680	54053	Gaba(b) Receptor 2	O75899	1416	GEDIEISDTESFSNDPC	Homo sapiens
1681	54053	Gaba(b) Receptor 2	O75899	1417	SSKQIKTISGKTPQQYE	Homo sapiens
1682	54053	Gaba(b) Receptor 2	O75899	1419	AATQNRFRQFTQNKKE	Homo sapiens
1683	54053	Gaba(b) Receptor 2	O75899	1420	CKDPIEDINSPEHIQRR	Homo sapiens
1684	55728	ETL protein	NP_071442.1	2113	CVLSRKIQEEYRLFKNVP	Homo sapiens
1685	55728	ETL protein	NP_071442.1	2114	CIAANINKTLTKIRSIKEP	Homo sapiens
1686	55728	ETL protein	NP_071442.1	2115	KLNVNHRRTHTKLMHTVE	Homo sapiens
1687	55728	ETL protein	NP_071442.1	2116	EKITFTLSHRKVTDRYSLC	Homo sapiens
1688	55728	ETL protein	NP_071442.1	2117	SSSLGYNNTISAKD	Homo sapiens
1689	56923	Muscarinic acetylcholine	P20309	1421	CSSYELQQGQSMKRSNRK	Homo sapiens

1690	56923	Receptor M3 Muscarinic acetylcholine Receptor M3	P20309	1422	KPSEQMDQDHSSSDSWNNN	Homo sapiens
1691	56923	Muscarinic acetylcholine Receptor M3	P20309	1423	DLERKADKLQAQKSVD	Homo sapiens
1692	56923	Muscarinic acetylcholine Receptor M3	P20309	1424	KEATLAKRFALKTRSQ	Homo sapiens
1693	57180	Receptor M3 Leukotriene B4 Receptor BLTR2	NP_062813.1	2097	PPTCRPRRMSVCVRPPGNE	Homo sapiens
1694	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2098	CLAVTRPFLAPRLRSPALAR	Homo sapiens
1695	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2099	RGARWGSGRHGARGVR	Homo sapiens
1696	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2100	TAGDLLPRAGPRLTR	Homo sapiens
1697	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2101	EGSGEARGGGRSREGTME	Homo sapiens
1698	57180	Leukotriene B4 Receptor BLTR2	NP_062813.1	2102	RTTPQLKVVGQGRNGD	Homo sapiens
1699	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1909	RSAPTALSRRLRARTHLPGC	Homo sapiens
1700	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1910	VRGSHGEPDASLMPRSC	Homo sapiens
1701	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1911	RKEDSVLMEATSGGPTSFR	Homo sapiens
1702	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1912	DQNKADIGGMLPGLTVRSV	Homo sapiens
1703	73584	Cadherin EGF LAG Seven- Pass G-Type Receptor 1 (CELSR1/Flamingo)	NP_055061.1	1913	PAGWPDQSLAESDSEDPSG	Homo sapiens
1704	74514	5-HT5A Receptor	NP_076917.1	2118	ETNHSGLGKDDLRPSSP	Homo sapiens
1705	74514	5-HT5A Receptor	NP_076917.1	2119	SLVHELSGRRWQLGRRLC	Homo sapiens
1706	74514	5-HT5A Receptor	NP_076917.1	2120	LLFGWGETYSEGSEC	Homo sapiens
1707	74514	5-HT5A Receptor	NP_076917.1	2121	FRVGSRTKNSVSPISE	Homo sapiens
1708	74514	5-HT5A Receptor	NP_076917.1	2122	RHATVTFQPEGDTWREQK	Homo sapiens

1709	81765	Thromboxane A2 Receptor	P21731	1277	GITRFSRPAVASQRR	Homo sapiens
1710	81765	Thromboxane A2 Receptor	P21731	1278	CHVYHGQEAQQRPDSEVE	Homo sapiens
1711	81765	Thromboxane A2 Receptor	P21731	1279	RNPPAMSPAGQLSRTE	Homo sapiens
1712	81765	Thromboxane A2 Receptor	P21731	1280	RRLQPRLSRPRRVSLC	Homo sapiens
1713	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	155	RYLSVVSPLSLRVPTLRC	Homo sapiens
1714	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	156	SSILDITFHKVLSGGCDYSE	Homo sapiens
1715	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	157	VEILRTLFRSRKRRHRTVK	Homo sapiens
1716	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	158	QTLFRTQIIRSCEAKQGLE	Homo sapiens
1717	98519	Chemokine (C motif) XC Receptor 1 (CCXCR1)	AAA62837.1	159	RLQAPSPASIPHSPGAFAYE	Homo sapiens
1718	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1589	RIEYYYSINSSPSQEE	Homo sapiens
1719	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1590	IMIAQTLRKNAQVRKC	Homo sapiens
1720	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1591	RNQNYNKLQHVQTRGYTKS	Homo sapiens
1721	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1592	SRLQLVSAINLSTAKD	Homo sapiens
1722	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1593	CKQKTRLRAMGKGNLEVR	Homo sapiens
1723	130108	G Protein-Coupled Receptor GPR75	NP_006785.1	1594	NSAYMLSPKPKQKFFVDQAC	Homo sapiens
1724	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1218	CKVQDSNRNRKMLPTQF	Homo sapiens
1725	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1219	HAVSLTKLVGRKPLS	Homo sapiens
1726	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1220	NVNVFSELSAPRRNED	Homo sapiens
1727	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1221	TKQRNPMDYPVEDAFC	Homo sapiens
1728	133117	G Protein-Coupled Receptor RAIG1	AAC98506.1	1222	CKPQLVKKSYGVENRA	Homo sapiens
1729	152198	Tachykinin Receptor 2	AAB05897.1	1286	RRAVPGHQAHGANLRH	Homo sapiens
1730	152198	Tachykinin Receptor 2	AAB05897.1	1287	KEDKLELPTTSLSTRVNR	Homo sapiens
1731	152198	Tachykinin Receptor 2	AAB05897.1	1288	KETLFMAGDTAPSEATSGEA	Homo sapiens

1732	152198	Tachykinin Receptor 2	AAB05897.1	1290	CVAWPEDSGGKTL	Homo sapiens
1733	152201	Thyrotropin Receptor	P16473	1445	RQRKSVNALNSPLHQE	Homo sapiens
1734	152201	Thyrotropin Receptor	P16473	1446	KFQDTHNNAHVYVFFEEQED	Homo sapiens
1735	152201	Thyrotropin Receptor	P16473	1449	CHVKYITVRNPQYNPGDK	Homo sapiens
1736	152201	Thyrotropin Receptor	P16473	1450	CKRGAQAYRGQRVPPKNSD	Homo sapiens
1737	152245	C-C Chemokine Receptor 2	NP_000639.1	1896	SRSRFRNTNESGEEVT	Homo sapiens
1738	152245	C-C Chemokine Receptor 2	NP_000639.1	1898	CGKEDSVVCGPYFPRGWNN	Homo sapiens
1739	152245	C-C Chemokine Receptor 2	NP_000639.1	1899	SGEEVITFFDYDYGAPCHKF	Homo sapiens
1740	152299	Interleukin-8 Receptor A	P25024	806	DFDDLNTGMPPADEYSPC	Homo sapiens
1741	152299	Interleukin-8 Receptor A	P25024	807	CWGLSMNLSLPFFLFRQAYH	Homo sapiens
1742	152299	Interleukin-8 Receptor A	P25024	808	RHRVTSYTSSSVNVSSN	Homo sapiens
1743	152299	Interleukin-8 Receptor A	P25024	1490	CMLTETLNKYVVIAYALV	Homo sapiens
1744	158822	Mas Proto-Oncogene	NP_002368.1	1527	EETNISTGRNASVGNHRQ	Homo sapiens
1745	158822	Mas Proto-Oncogene	NP_002368.1	1528	RRNPFTVYTHLSIAD	Homo sapiens
1746	158822	Mas Proto-Oncogene	NP_002368.1	1529	YVMCIDREEESHNRDCRAV	Homo sapiens
1747	158822	Mas Proto-Oncogene	NP_002368.1	1530	SSTILVVKIRKNTWASHSK	Homo sapiens
1748	158822	Mas Proto-Oncogene	NP_002368.1	1531	TRAFKDEMQRPRQKDN	Homo sapiens
1749	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1578	ERYLGVAFPVQYKLSRRPL	Homo sapiens
1750	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1586	QYLNITEQVRSGNEITC	Homo sapiens
1751	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1588	EGTNEDRGVGGGEGMPSSD	Homo sapiens
1752	159152	G Protein-Coupled Receptor GPR43	NP_005297.1	1616	RGLQVLNRNQSSLLGRRGKD	Homo sapiens
1753	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1292	KQCLEEAQLENETIGCS	Homo sapiens
1754	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1296	KDLALFDSGESDQCSE	Homo sapiens
1755	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1297	LQKLPPDIRKSDSSP	Homo sapiens
1756	159973	Vasoactive Intestinal Polypeptide Receptor 1	P32241	1298	NPKYRHPGSGSNGATC	Homo sapiens
1757	160040	Vasoactive Intestinal Polypeptide Receptor 1	P41587	1299	KVFSNFYSKAGNISKNC	Homo sapiens
1758	160040	Vasoactive Intestinal Polypeptide Receptor 2	P41587	1301	CGYSDPEDESKITFYI	Homo sapiens
1759	160040	Vasoactive Intestinal Polypeptide Receptor 2	P41587	1305	KRKWRSRCPTPSASRD	Homo sapiens

1760	160040	Polypeptide Receptor 2	P41587	1306	CGSFSRNGSEGAHQFHR	Homo sapiens
1761	160055	Vasoactive Intestinal Polypeptide Receptor 2	AAC26081.1	132	REPPWPALPPCDERRCS	Homo sapiens
1762	160055	Motilin Receptor (GPR38)	AAC26081.1	134	SPSPGPETAEEAAALFSREC	Homo sapiens
1763	160055	Motilin Receptor (GPR38)	AAC26081.1	135	SSRRPLRGPAASGRERGRHQ	Homo sapiens
1764	160055	Motilin Receptor (GPR38)	AAC26081.1	136	RKSRPRGFHRSRDITAG	Homo sapiens
1765	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1595	NPLVTGYLGRGPGKLTVC	Homo sapiens
1766	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1596	GRYLGAAPFLGYQAFRRPC	Homo sapiens
1767	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1597	CLEAWDPASAGPARFS	Homo sapiens
1768	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1598	CLRALARSGLTHRRKLR	Homo sapiens
1769	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1599	NASNVASFLYPNLGGSWRK	Homo sapiens
1770	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1617	TVSLPLKAVEALASGA	Homo sapiens
1771	160059	G Protein-coupled Receptor GPR40	NP_005294.1	1618	DHSNTSLGINTPVNGSPVC	Homo sapiens
1772	160189	G Protein-Coupled Receptor GPR54	BAB55446	1926	CSEAFPSRALERAFALY	Homo sapiens
1773	160189	G Protein-Coupled Receptor GPR54	BAB55446	1927	ERAGAVRAKVSRLVAHV	Homo sapiens
1774	160189	G Protein-Coupled Receptor GPR54	BAB55446	1928	RRPGPSDPAAPHAELHRLGS	Homo sapiens
1775	160189	G Protein-Coupled Receptor GPR54	BAB55446	1929	GAPANASGCPGCGANASD	Homo sapiens
1776	160202	Adrenomedullin Receptor (ADMR)	O15218	390	DLFNHTLSECHVELSQST	Homo sapiens
1777	160202	Adrenomedullin Receptor (ADMR)	O15218	391	NVLTACRLRQPGQPKSRRHC	Homo sapiens
1778	160202	Adrenomedullin Receptor (ADMR)	O15218	392	KDQTKAGTCASSSSCSTQ	Homo sapiens
1779	160202	Adrenomedullin Receptor (ADMR)	O15218	484	KGDSQPAAAAAPHPEPSLS	Homo sapiens
1780	160204	G Protein-Coupled Receptor RTA	LR85	1977	CRARRRQRSTKLNHVILA	Homo sapiens

1781	160204	G Protein-Coupled Receptor RTA	LR85	1983	CPGLSEAPELYRRGFLTIEQ	Homo sapiens
1782	160204	G Protein-Coupled Receptor RTA	LR85	1985	RDGAELGEAGGSTPNTVT	Homo sapiens
1783	160204	G Protein-Coupled Receptor RTA	LR85	2173	LAGRDKSQRLWEPLRV	Homo sapiens
1784	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1678	RTRKWNCGCTHCYLAFNDS	Homo sapiens
1785	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1679	RAKLREGWVHANRPKR	Homo sapiens
1786	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1680	RRVMILKEIVHPRMILLI	Homo sapiens
1787	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1682	SALARAFGEEFFLSSC	Homo sapiens
1788	160206	G Protein-Coupled Receptor GPR32	NP_001497.1	1683	RSCSRKMINSSGCLSEE	Homo sapiens
1789	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	151	PGPDRDATCNSRQAALAVSK	Homo sapiens
1790	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	152	SSHAAVSLRLQHRGRRRPGR	Homo sapiens
1791	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	153	DDSELGGAGSSRRRRTSSTA	Homo sapiens
1792	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	AAD21055.1	154	DGPPEPGAEGHLELEPGRR	Homo sapiens
1793	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2220	CPILEQMSRLQSHSNTSIRY	Homo sapiens
1794	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2221	RYIDHAAVLLHGLASLLGLV	Homo sapiens
1795	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2222	CRMIRQTVVTWVHLALSDDL	Homo sapiens
1796	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2223	SASLPFFTYFLAVGHSWE	Homo sapiens
1797	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2224	CLVLWALAVLNTVPYFVRD	Homo sapiens
1798	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2225	CYNNVLLNPGPDRDAT	Homo sapiens
1799	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2226	CNSRQAALAVSKFLAFLVP	Homo sapiens
1800	160210	G Protein-Coupled Receptor GPR44 (CRTH2)	NP_004769.1	2228	RGLPFVTSLAFFNSVANPVL	Homo sapiens

1801	160210	Receptor GPR44 (CRTH2) G Protein-Coupled	NP_004769.1	2229	CSRPEEPRGPRLLGWLLGS	Homo sapiens
1802	160210	Receptor GPR44 (CRTH2) G Protein-Coupled	NP_004769.1	2230	CAASPQTGPLNRALSS	Homo sapiens
1803	160212	Receptor GPR44 (CRTH2) G Protein-Coupled	Q9Y2T5	444	KEINDRRARFPSHEVDSSRE	Homo sapiens
1804	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	445	CVKDQEAQEPRKPRKRANS	Homo sapiens
1805	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	446	RWTEWRILNMSSGIVNASER	Homo sapiens
1806	160212	Receptor GPR52 G Protein-Coupled	Q9Y2T5	622	HSCPLGFGHYVVVDCIFE	Homo sapiens
1807	160217	Receptor GPR52 G Protein-Coupled	AAD22410.1	161	GKVEKVMCFHNMSDDTWSAK	Homo sapiens
1808	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	162	RSIHILLGRRDHTQDWVQQK	Homo sapiens
1809	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	163	CRAKQSIFFLQLSM	Homo sapiens
1810	160217	Receptor GPR55 G Protein-Coupled	AAD22410.1	164	KEFRMNIRAHPRSRVQLVLQ	Homo sapiens
1811	160219	Receptor GPR55 G Protein-Coupled	AAC52028.1	2	AQRPTDVGQAEATRKAAR	Homo sapiens
1812	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	3	KEFQEASALAVAPRAKAHK	Homo sapiens
1813	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	123	GGFCFRSTRHNFNSMR	Homo sapiens
1814	160219	Receptor GPR35 G Protein-Coupled	AAC52028.1	125	ETIRRALYITSLSDANC	Homo sapiens
1815	160221	Receptor GPR35 G Protein-Coupled	LR6	335	FPPVLDGGGDDDEDAPCALEQ	Homo sapiens
1816	160221	Receptor GPR27 G Protein-Coupled	LR6	338	RGARRLLVLEEFKTEKRLC	Homo sapiens
1817	160221	Receptor GPR27 G Protein-Coupled	LR6	496	NASEPGSGGGGEEAALGLK	Homo sapiens
1818	160221	Receptor GPR27 G Protein-Coupled	Q54897	515	GLRALACLPVAVMLAARRA	Mus musculus
1819	160221	Receptor GPR27 G Protein-Coupled	LR6	1291	RPAGPGRGARRLLVLE	Homo sapiens

1820	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1606	CQRPKPQEDGQSPV	Homo sapiens
1821	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1607	CNMIGDVITEQYFALRRK	Homo sapiens
1822	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1610	EGRADEQSAAALAVP	Homo sapiens
1823	160222	G Protein-Coupled Receptor GPR72	NP_057624.1	1611	QNFVGRRRRYGAESQNPVTK	Homo sapiens
1824	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1600	RIFRSIKQSMGLSAAQKAK	Homo sapiens
1825	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1601	CDRFVAVVYALESRRR	Homo sapiens
1826	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1604	ATDHSRQEVSRHKGWKE	Homo sapiens
1827	160223	G Protein-Coupled Receptor G2A	NP_037477.1	1605	KTDVTRLTHSRDTEELQS	Homo sapiens
1828	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	403	ETQEQQSRSKRGTEDEEAK	Homo sapiens
1829	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	404	SPNPKDKGGTPDSGQELR	Homo sapiens
1830	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	405	CQLVTWRVRGPPGRKSE	Homo sapiens
1831	160224	Endothelin Type B Receptor-Like Protein 2 (ETBR-LP-2)	O60883	406	AANGSDNKLKTEVSS	Homo sapiens
1832	160225	Sphingolipid Receptor Edg6	CAA04118.1	70	PRDSFRGSRSLSRMRE	Homo sapiens
1833	160225	Sphingolipid Receptor Edg6	CAA04118.1	71	ERFATMVRPVAESGATKTSR	Homo sapiens
1834	160225	Sphingolipid Receptor Edg6	CAA04118.1	72	RLVQASGGQKAPRPAAR	Homo sapiens
1835	160225	Sphingolipid Receptor Edg6	CAA04118.1	73	RAVEAHSGASTDSSLRPD	Homo sapiens
1836	160225	Sphingolipid Receptor Edg6	CAA04118.1	1914	IFRLVQASGGQKAPRPAAR	Homo sapiens
1837	160225	Sphingolipid Receptor Edg6	CAA04118.1	1915	DSSLRPDSFRGSRSLSRM	Homo sapiens
1838	160225	Sphingolipid Receptor Edg6	CAA04118.1	1916	RSLSRMREPLSSISVR	Homo sapiens
1839	160225	Sphingolipid Receptor Edg6	CAA04118.1	1917	GPEDGGGLALRGLSVAASC	Homo sapiens
1840	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1625	ANIGSLCVSFLQPKKE	Homo sapiens
1841	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1626	ETIFNAVMLWEDETVE	Homo sapiens
1842	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1627	CNRKVYQAVRHINKATENKE	Homo sapiens

1843	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1628	CILEHAVNFEDHSNSGKR	Homo sapiens
1844	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	1629	CNTSQRQKRILSVSTKD	Homo sapiens
1845	160228	T-Cell Death-Associated Gene 8 (GPR65)	NP_003599.1	2303	CDAEKSNTFLCYDKYPLEK	Homo sapiens
1846	160300	Encephalopsin	NP_055137.1	2131	CTVDWKSNDANDSSFV	Homo sapiens
1847	160300	Encephalopsin	NP_055137.1	2132	CVEDLQTIQVILKLYEK	Homo sapiens
1848	160300	Encephalopsin	NP_055137.1	2133	CQRPADKLPAAAGSEMQRIP	Homo sapiens
1849	160300	Encephalopsin	NP_055137.1	2134	TSDELSVDDSDKTIG	Homo sapiens
1850	160312	Spingolipid Receptor Edg5	O95136	1018	ERHVAIAKVLYGSDKSC	Homo sapiens
1851	160312	Spingolipid Receptor Edg5	O95136	1019	RSRDLRREVLRPLQC	Homo sapiens
1852	160312	Spingolipid Receptor Edg5	O95136	1020	QEHVNYTKETLETQET	Homo sapiens
1853	160312	Spingolipid Receptor Edg5	O95136	1021	GRRRVGTPGHHLLPLR	Homo sapiens
1854	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1922	MMIRKKAKFSLRENPVETKG	Homo sapiens
1855	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1923	MMIEYSNFEKEYDDVTIKM	Homo sapiens
1856	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1924	CEQTEKKKKLRHLALRSE	Homo sapiens
1857	160314	G Protein-Coupled Receptor GPR103	ENSMPRT221753	1925	KKRVGDGSLRTHGKEMSK	Homo sapiens
1858	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	463	DRARRERFIMNEKWDNNSSE	Homo sapiens
1859	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	464	RKNQEQWHVVSRRKKQKIK	Homo sapiens
1860	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	465	RKSAEKPQQELVMEELE	Homo sapiens
1861	160317	Neuropeptide FF 2 Receptor	Q9Y5X5	500	RQSAGDRRLGLSLRQTAK	Homo sapiens
1862	160324	G Protein-Coupled Receptor	NP_076403.1	1619	DRFLKIRPLRNIFLKKP	Homo sapiens
1863	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1620	MILSNKEATPSSVKKC	Homo sapiens
1864	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1622	VYDSYRKSCKDRKNN	Homo sapiens
1865	160324	GPR86/GPR94/P2Y13 G Protein-Coupled Receptor	NP_076403.1	1623	ARVPYTHSQTNNTKDC	Homo sapiens

1866	160324	G Protein-Coupled Receptor	NP_076403.1	1624	CMQGRKTTASSQENHSSQTD	Homo sapiens
1867	160329	GPR86/GPR94/P2Y13 Proteinase-Activated Receptor 4	O76067	1308	CANDSDTLELPDSSRA	Homo sapiens
1868	160329	Proteinase-Activated Receptor 4	O76067	1309	PIRARALGRRLALGLC	Homo sapiens
1869	160329	Proteinase-Activated Receptor 4	O76067	1310	LQRQTFRLARSDRVLC	Homo sapiens
1870	160329	Proteinase-Activated Receptor 4	O76067	1311	RDKVRAGLFQIRSPGDT	Homo sapiens
1871	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1213	CELRDLQLLSQFLKHPQK	Homo sapiens
1872	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1214	TSVRFMGDMVSEEDR	Homo sapiens
1873	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1215	RQEEEQSEIMEYSVLLP	Homo sapiens
1874	160330	G Protein-Coupled- Receptor TM7XN1/GPR56	Q9Y653	1216	RTLFQRTKGRSGEAEKR	Homo sapiens
1875	160387	Glucagon-Like Peptide 2 Receptor	O95838	1312	GSLLLEETTRKWAQYKQAC	Homo sapiens
1876	160387	Glucagon-Like Peptide 2 Receptor	O95838	1313	QTIENATDIWQDDSEC	Homo sapiens
1877	160387	Glucagon-Like Peptide 2 Receptor	O95838	1315	CPKKLSEGDGAEKLRK	Homo sapiens
1878	160387	Glucagon-Like Peptide 2 Receptor	O95838	1316	QQDHARWPRGSSLSEC	Homo sapiens
1879	160388	Latrophilin-1	O94910	1121	EPTSTHSEHQSGAWC	Homo sapiens
1880	160388	Latrophilin-1	O94910	1126	CEPREVRRVQWPATQ	Homo sapiens
1881	160388	Latrophilin-1	O94910	1129	RSQDFPPGDGGPEPPR	Homo sapiens
1882	160388	Latrophilin-1	O94910	1131	CTAEDGATSRPLSSPPGRDS	Homo sapiens
1883	160388	Latrophilin-1	O94910	1706	RESAGKNYNKMHKRETC	Homo sapiens
1884	160388	Latrophilin-1	O94910	1707	RDSPSYDSSPEGPSEALP	Homo sapiens
1885	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1938	QVGPCRSLSRGRGSSGAC	Homo sapiens
1886	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1939	CRDAGTELTGHLVPHHDGLR	Homo sapiens

1887	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1940	CKLAQAPGLRAGERSPEESL	Homo sapiens
1888	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1942	RVSDTPEGVNSLDP SHGES	Homo sapiens
1889	160390	Cadherin EGF LAG Seven-Pass G-Type Receptor 2 (CELSR2)	NP_001399.1	1943	RSGKSQPSYIPFLLREES	Homo sapiens
1890	160397	Latrophilin-2	O95490	1132	CEALDSKGIKWPQTQR	Homo sapiens
1891	160397	Latrophilin-2	O95490	1133	DILDAGLQELKPSEKD	Homo sapiens
1892	160397	Latrophilin-2	O95490	1136	RTHSLLYQPQKKV/KSE	Homo sapiens
1893	160397	Latrophilin-2	O95490	1137	RDSPYPESPDMEEEDL	Homo sapiens
1894	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1630	CQEGKMLRTLDSYNNIRD	Homo sapiens
1895	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1631	CDSYANLNTEDNSLQD	Homo sapiens
1896	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1632	KGTDAAANVTSTLENEE	Homo sapiens
1897	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1633	ERSLSAKDIMKNGKSNHLK	Homo sapiens
1898	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1634	CNLEKEDLSENGSSMIK	Homo sapiens
1899	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1635	KRRVTKKSGSVSVSIS	Homo sapiens
1900	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1636	CGTQSAHSDYADEEDS	Homo sapiens
1901	160411	G Protein-Coupled Receptor GPR48	NP_060960.1	1637	DEEDSFVSDSSDQVQAC	Homo sapiens
1902	160435	LS160435 Receptor	LR80	1918	ATILKLLRTEEAHGREQRR	Homo sapiens
1903	160435	LS160435 Receptor	LR80	1919	CRRVPRDTLDTRESLFSAR	Homo sapiens
1904	160435	LS160435 Receptor	LR80	1920	PLSSKRWRRRRYAVAAC	Homo sapiens
1905	160435	LS160435 Receptor	LR80	1921	CRRMGPRSPSVIFMINL	Homo sapiens
1906	160889	Platelet Activating Receptor Homolog (H963)	O14626	1223	MMIPIKDIKEKSNVGC	Homo sapiens
1907	160889	Platelet Activating Receptor Homolog (H963)	O14626	1224	CLVIRQLYRNKDNENYP	Homo sapiens
1908	160889	Platelet Activating Receptor	O14626	1225	CSTRISLFKAKEATLL	Homo sapiens

1909	160889	Homolog (H963) Platelet Activating Receptor	O14626	1226	ETFA SPKETKAQKEKLR	Homo sapiens
1910	161024	Homolog (H963) Protein A	NP_062832.1	1690	ESRAVGLPLGLSAGRRRC	Homo sapiens
1911	161024	Protein A	NP_062832.1	1691	EDARGKRSSLDGSESAK	Homo sapiens
1912	161024	Protein A	NP_062832.1	1692	RTVWEGCVAIMSEEDGD	Homo sapiens
1913	161024	Protein A	NP_062832.1	1693	CKVRFDANGATGPGSRD	Homo sapiens
1914	161024	Protein A	NP_062832.1	1694	RRLSHDETINIFSPRE	Homo sapiens
1915	161024	Protein A	NP_062832.1	1695	GGPPEYLGQRHRLDEED	Homo sapiens
1916	161024	Protein A	NP_062832.1	1696	REEITFIDETPLPSP	Homo sapiens
1917	161024	Protein A	NP_062832.1	1697	RRRPGLGSPRRRLSGSPE	Homo sapiens
1918	161214	Galanin Receptor GalR3	AAC35944.1	202	RYGALELCVPAWEDARR	Homo sapiens
1919	161214	Galanin Receptor GalR3	AAC35944.1	203	GAAAAEARRRATGRAGR	Homo sapiens
1920	161214	Galanin Receptor GalR3	AAC35944.1	204	ASRHFRRFRRLWPC	Homo sapiens
1921	161214	Galanin Receptor GalR3	AAC35944.1	205	RARRALRRVRPASSGPP	Homo sapiens
1922	161221	Urotensin-II Receptor (GPR14)	LR15	371	ERYAAVLRPLD TVQRPKG	Homo sapiens
1923	161221	Urotensin-II Receptor (GPR14)	LR15	372	RAYRRSQRASFKRARRPGAR	Homo sapiens
1924	161221	Urotensin-II Receptor (GPR14)	LR15	373	RNYRDHLRGVRGPGSG	Homo sapiens
1925	161221	Urotensin-II Receptor (GPR14)	LR15	374	RARFQRCSGRSLSCSPQPTD	Homo sapiens
1926	161249	G Protein-Coupled Receptor GPR66	LR20	394	ARGHFDPEDLNLTDEALRLK	Homo sapiens
1927	161249	G Protein-Coupled Receptor GPR66	LR20	395	IGLRIRRRERLLMQEAKGRG	Homo sapiens
1928	161249	G Protein-Coupled Receptor GPR66	LR20	396	RGSAAAARSRYTCRLQQH	Homo sapiens
1929	161249	G Protein-Coupled Receptor GPR66	LR20	397	ALCLGACCHRLRPRHSS	Homo sapiens
1930	161251	Purinergic Receptor P2Y10	O00398	859	CFELLKPFRRARDWKRRYD	Homo sapiens
1931	161251	Purinergic Receptor P2Y10	O00398	860	PFPILRSTD LNINNKSC	Homo sapiens
1932	161251	Purinergic Receptor P2Y10	O00398	862	QLSRHGSSVTRSLMSKE	Homo sapiens
1933	161251	Purinergic Receptor P2Y10	O00398	863	LRQPPMAFQGIGSERQK	Homo sapiens
1934	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1672	YYDDLDDVDVEESAPC	Equine herpesvirus 2

1935	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1674	CDPYYPPEMSTNVWRRRAHVAK	Equine herpesvirus 2
1936	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1675	CYVVIIRLLRRPSKK	Equine herpesvirus 2
1937	161293	G Protein-Coupled Receptor Ls161293 (Herpes virus)	NP_042597.1	1676	CKYIPFLSGDGEGKEGPT	Equine herpesvirus 2
1938	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1820	RNLTSSPAPTASPAPS	Homo sapiens
1939	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1821	PSWTPSPRPGPAHPFLQPP	Homo sapiens
1940	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1822	RSSHQKRGTTTRDVGSNVC	Homo sapiens
1941	177147	Neuromedin K Receptor-Like (NK-4R)	NP_006670.1	1823	KSTTTASFVSSSHMSVEE	Homo sapiens
1942	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1317	TSPFLMAKPGQKDEKNITKC	Homo sapiens
1943	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1318	KKSMKKNLSSHKKAIG	Homo sapiens
1944	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1319	QRTIHLHLNETKPC	Homo sapiens
1945	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Q9Y271	1320	RKHSLSSTVYVPRKKASLPE	Homo sapiens
1946	177191	Histamine H3 Receptor	Q9Y5N1	474	RAVSYRAQQGDTTRRAVRK	Homo sapiens
1947	177191	Histamine H3 Receptor	Q9Y5N1	475	QRRTRLRLDGAREAAAGPE	Homo sapiens
1948	177191	Histamine H3 Receptor	Q9Y5N1	476	QSFQIRFRLSRDRKVA	Homo sapiens
1949	177191	Histamine H3 Receptor	Q9Y5N1	477	RYGVGEAAVGAEGEATLG	Homo sapiens
1950	177191	Histamine H3 Receptor	Q9Y5N1	1477	SSRGTERPRSLKRGSKPSAS	Homo sapiens
1951	177191	Histamine H3 Receptor	Q9Y5N1	1479	KPSASSASLEKRMKMVS	Homo sapiens
1952	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2052	RTLFSFYFRDTPRANR	Homo sapiens
1953	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2053	RPEMSRGLLAVRGAFV	Homo sapiens
1954	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2059	CAVLSHRRRAQPWALLLV	Homo sapiens
1955	177387	G Protein-Coupled Receptor ORF4	NP_064540.1	2733	RVLVSDSLFVICALSL	Homo sapiens

1956	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1014	KRKTNVLSPHITSGSIS	Homo sapiens
1957	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1015	CFSQENPERRPSRIPST	Homo sapiens
1958	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1016	SYKDEDMYGTMKKMIC	Homo sapiens
1959	180956	Lysophosphatidic Acid Receptor Edg7	AAF00530.1	1017	VERHMSIMRMVRVHSN	Homo sapiens
1960	189873	G Protein-Coupled Receptor GPR78	LR37	443	CQRMDVTMKALALLAD	Homo sapiens
1961	189873	G Protein-Coupled Receptor GPR78	LR37	528	CSLRPPPEPRPRFAAFTAT	Homo sapiens
1962	189873	G Protein-Coupled Receptor GPR78	LR37	533	RGPLPPGICAHSAQGALRR	Homo sapiens
1963	189873	G Protein-Coupled Receptor GPR78	LR37	534	CRQAQARDLGAPWAVGLRSL	Homo sapiens
1964	189874	Neuromedin U Receptor 2	LR28	420	QQKLEDPFQKHLNSTEE	Homo sapiens
1965	189874	Neuromedin U Receptor 2	LR28	422	KDKSLEADEGNANIQRPC	Homo sapiens
1966	189874	Neuromedin U Receptor 2	LR28	423	SQHDPQLPPAQRNIFLTC	Homo sapiens
1967	189874	Neuromedin U Receptor 2	LR28	487	ILHPFRAKLQSTRRLALR	Homo sapiens
1968	189884	G Protein-Coupled Receptor Ls189884	LR27	415	CKKRGTKTNLRNQIRSK	Homo sapiens
1969	189884	G Protein-Coupled Receptor Ls189884	LR27	418	EKPSSPSSGKGKTEKAE	Homo sapiens
1970	189884	G Protein-Coupled Receptor Ls189884	LR27	419	PSVQDNDPIPWEHEDQETGE	Homo sapiens
1971	189884	G Protein-Coupled Receptor Ls189884	LR27	486	KKPPTVSESQETPAGNSEG	Homo sapiens
1972	189884	G Protein-Coupled Receptor Ls189884	LR27	1832	LVMSEEFREGKGVWK	Homo sapiens
1973	189884	G Protein-Coupled Receptor Ls189884	LR27	1833	GLPDKVPSPESPAIPEK	Homo sapiens
1974	189884	G Protein-Coupled Receptor Ls189884	LR27	1834	PDVEQFWHERDTVPSVQ	Homo sapiens
1975	189884	G Protein-Coupled Receptor Ls189884	LR27	1835	RHHEGVEMCLVDVPAVAEE	Homo sapiens
1976	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1685	RVPQTPGPSTASGVPE	Homo sapiens
1977	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1686	ETPRQRSESLSRSTMVTS	Homo sapiens

1778	189895	Receptor GPR61	AAK12637.1	1687	SSGAPQTTPHRTFGGK	Homo sapiens
1779	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1688	KPAPEELRLPSREGSIE	Homo sapiens
1780	189895	G Protein-Coupled Receptor GPR61	AAK12637.1	1689	CPSESWVSRPLSPKQE	Homo sapiens
1781	189900	Spingolipid Receptor Edg8	LR1	312	TGKLRGARYQPGAGLRAD	Homo sapiens
1782	189900	Spingolipid Receptor Edg8	LR1	316	ALERSLTMARRGPAPVSS	Homo sapiens
1783	189900	Spingolipid Receptor Edg8	LR1	317	DGSFSGSERSSPQRDGLD	Homo sapiens
1784	189900	Spingolipid Receptor Edg8	LR1	318	CGRDPGSGQSSASAAEASG	Homo sapiens
1785	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2266	ASRKAEAIQKLKVQGEVS	Homo sapiens
1786	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2270	SCLSYRVGTKPSASLR	Homo sapiens
1787	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2271	RVDYLLHETWRFGAAAC	Homo sapiens
1788	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2272	HQSRALLGLTRGRQGPVSD	Homo sapiens
1789	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2273	CIHTRPWTSNTVFLVSL	Homo sapiens
1790	189901	G Protein-Coupled Receptor Ls189901 (HEOAD54)	ENSP000000071589	2274	RGRQGPVSDSSVQPSR	Homo sapiens
1791	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2108	IDRYLIKYPFREHLLQKKE	Homo sapiens
1792	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2109	TDNGTTCNDFASSGDPN	Homo sapiens
1793	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2110	FLKQRNRQVATALPLE	Homo sapiens
1794	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2111	RNVRIASRLGSKWKYQC	Homo sapiens
1795	189904	Purinergic Receptor P2U2 (GPR91)	AAK29080.1	2112	GDHFRDMLMNLRLHNFKS	Homo sapiens

1996	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1721	CVAFLAVGNPDQLIPSR	Homo sapiens
1997	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1722	NTLRHNALRIHSYPEGIC	Homo sapiens
1998	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1723	QASKLGLMSLQRPQMSID	Homo sapiens
1999	189920	G Protein-Coupled Receptor GPR63 (PSP24 beta)	AAK12639.2	1724	DMMPKSFKFLPQLPGHTKRR	Homo sapiens
2000	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1715	QNLKDPVQIKIKHTRTQE	Homo sapiens
2001	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1716	KNKSFGGWNTSGCVAHRD	Homo sapiens
2002	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1717	RNNNEVYGKESYGKEKGDE	Homo sapiens
2003	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1718	CGRNGKRSNRTLREEVLR	Homo sapiens
2004	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1719	TSKSKSSSTTYFKRNSHTD	Homo sapiens
2005	189945	G Protein-Coupled Receptor DJ287g14.2	Q9Y3K0	1720	DKSLSLAHADGDQTS	Homo sapiens
2006	190026	G Protein-Coupled Receptor JEG18	LR24	407	LFPLLRTSDDTPGNRTKC	Homo sapiens
2007	190026	G Protein-Coupled Receptor JEG18	LR24	408	QDKYPMAQDGLGEKQKALK	Homo sapiens
2008	190026	G Protein-Coupled Receptor JEG18	LR24	409	SFPLDFLVKSNEIKSC	Homo sapiens
2009	190026	G Protein-Coupled Receptor JEG18	LR24	410	RRRLSRQDLHDSIQLHAK	Homo sapiens
2010	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1725	KGEAKLDSRAKDVTLTIQE	Homo sapiens
2011	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1727	DHKEQPIVTENAERQLVVKD	Homo sapiens
2012	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1728	EDFEEQTLILFDGERERK	Homo sapiens
2013	190031	G Protein-Coupled Receptor VLGR1	AAD55586.1	1729	EGKEGDYIRIPERLLDVQD	Homo sapiens

2014	190168	Receptor VLGR1	AAF27278.1	324	SEAYADGIEGYDILVACSSS	Homo sapiens
2015	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	326	NNLRNQNNGVKKDKAAK	Homo sapiens
2016	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	379	DPFLNFSTPVVLFDAIT	Homo sapiens
2017	190168	G Protein-Coupled Receptor GPR58	AAF27278.1	380	GKIFSCFHNTILCMQKE	Homo sapiens
2018	190170	G Protein-Coupled Receptor GPR58	AAF27279.1	327	CPKFVNKILSSHQPLFS	Homo sapiens
2019	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	328	KQHARVISHVPENTKGAVKK	Homo sapiens
2020	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	329	ENITGAVKKHLSKKKDRKA	Homo sapiens
2021	190170	G Protein-Coupled Receptor GPR57	AAF27279.1	330	CKFHTSFDMMRLTSI	Homo sapiens
2022	190188	G Protein-Coupled Receptor GPR57	LR36	439	ENHDQDDLDELQLEMEDSKP	Homo sapiens
2023	190188	Receptor LGR6	LR36	440	NPHFRDDLRLRPRAAGDS	Homo sapiens
2024	190188	G Protein-Coupled Receptor LGR6	LR36	442	EDLHLDDEESSKRPLGLLAR	Homo sapiens
2025	190188	G Protein-Coupled Receptor LGR6	LR36	621	DSGPLAYAAAGELEKSSC	Homo sapiens
2026	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1836	CAARRQHALLYNVKRRHSLE	Homo sapiens
2027	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1837	DGSLKAKEGSTGTSESSV	Homo sapiens
2028	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1838	CSIDLGEDGMEFGEDDIN	Homo sapiens
2029	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1839	SEDDVEAVNIPESLPPS	Homo sapiens
2030	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1840	MHKTIKKEIQDMLKKFFC	Homo sapiens
2031	190414	G Protein-coupled Receptor GPR101	CAC33098.1	1841	KEDSHPDLPGTGGTEG	Homo sapiens
2032	190418	Inflammation-Related G Protein-Coupled Receptor	LR8	343	RQVKRAAQALDQYKLRQAS	Homo sapiens

2033	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	344	RTDEAMPGRFQELDSRLASG	Homo sapiens
2034	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	345	DSSEVGDDQINSKRAKQMAEK	Homo sapiens
2035	190418	EX33 Inflammation-Related G Protein-Coupled Receptor	LR8	346	KAQPIKGARRAPDSSEFGK	Homo sapiens
2036	190419	EX33 G Protein-Coupled Receptor Ls190419	CAC33085.1	2716	RRKSNFRLRGYSTGKT	Homo sapiens
2037	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2717	RRQKSSYNYLLALAAAD	Homo sapiens
2038	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2719	CFLTSPYVWWPNIWT	Homo sapiens
2039	190419	G Protein-Coupled Receptor Ls190419	CAC33085.1	2725	CSIFFILNSIIVVKLR	Homo sapiens
2040	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2754	GRLIYSLLSFISIPH	Homo sapiens
2041	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2755	FFLFLWIHVVDRE	Homo sapiens
2042	190421	MrgX1 G Protein-Coupled Receptor	AAK91804.1	2756	MDPTISTLDTELTP	Homo sapiens
2043	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	471	ASSIMLLDSGSEQNGSVTSC	Homo sapiens
2044	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	472	RVLLKVEVPESGLRVSHRK	Homo sapiens
2045	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	473	KDRLKSALRKGHQPQAKATKC	Homo sapiens
2046	190427	Cysteinyl Leukotriene CYSLT2 Receptor	LR49	512	MEPNGTFSNNNSRNC	Homo sapiens
2047	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2253	CTIENFKREFFPIVYLIF	Homo sapiens
2048	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2254	GVLGNGLSIYVFLQPYK	Homo sapiens
2049	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2255	ADYYLRGSGNWIFGDLAC	Homo sapiens
2050	190427	Cysteinyl Leukotriene CYSLT2 Receptor	NP_065110.1	2256	FRLHVTIRSRAWILC	Homo sapiens

2051	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2257	CGIIWILIMASSIMLLDSGS	Homo sapiens
2052	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2258	CLELNLYKIAKLQTMNYIAL	Homo sapiens
2053	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2260	VSHRKALTIITLIIFLC	Homo sapiens
2054	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2261	CFLPYHLRTVHLTWKVGGL	Homo sapiens
2055	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2262	CKDRLHKALVITLALA	Homo sapiens
2056	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2263	YFAGENFKDRILKSALRKG	Homo sapiens
2057	190427	Receptor Cysteinyl Leukotriene CysLT2	NP_065110.1	2264	HPQKAKTKCVFPVSVWLKKE	Homo sapiens
2058	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	429	DSVSYEYGDYSDLSDRPVDC	Homo sapiens
2059	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	430	RESQGQDESVDKSKTSYHD	Homo sapiens
2060	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	431	PSAIYRRLHQEHFARLQC	Homo sapiens
2061	190437	Receptor G Protein-Coupled Receptor C5L2	LR31	432	CHWALRESQGQDESVDKSKS	Homo sapiens
2062	190437	Receptor G Protein-Coupled Receptor C5L2	NP_060955.1	2818	MGNDVSYEYGDYSDLSDRPVDC	Homo sapiens
2063	190438	Receptor G Protein-Coupled Receptor Ls190438	ENSP00000080322	2585	TERLKIRWHTSDNQVRPQAC	Homo sapiens
2064	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	434	EADLGATGHRPRTLELDED	Homo sapiens
2065	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	435	RTCHRRQQQPAACRGFARVAR	Homo sapiens
2066	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	436	EERPQSFPTPEQTQLDSEG	Homo sapiens
2067	190484	Receptor G Protein-Coupled Receptor Ls190484	LR33	437	RSDPTAQPLNPTAQPLQSD	Homo sapiens
2068	190595	Receptor G Protein-Coupled Receptor SH120	NP_057418.1	1730	RNVTDIDILALERLLG	Homo sapiens
2069	190595	Receptor G Protein-Coupled Receptor SH120	NP_057418.1	1731	KKKRMAMARRTMFQKGE	Homo sapiens

2070	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1732	KSVTTSASGSENLTQQE	Homo sapiens
2071	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1733	EVDALFELSRQLFLETAD	Homo sapiens
2072	190595	G Protein-Coupled Receptor SH120	NP_057418.1	1734	DRVGKTDVPVTRGIEIT	Homo sapiens
2073	190599	G Protein-Coupled Receptor GPRC5B	O75205	411	VRLPFIKEKEKSPVGLH	Homo sapiens
2074	190599	G Protein-Coupled Receptor GPRC5B	O75205	412	DEHNAALRTAGFPNGSLGKR	Homo sapiens
2075	190599	G Protein-Coupled Receptor GPRC5B	O75205	413	GKRPSGSLGKRPSAPFRSNV	Homo sapiens
2076	190599	G Protein-Coupled Receptor GPRC5B	O75205	414	SQPRMRETAFEEDVQLPR	Homo sapiens
2077	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	542	GDAIYQSLKAQINAYSRHC	Homo sapiens
2078	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	543	PFSSHSSYTVRSKKIFLSKL	Homo sapiens
2079	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	619	GKILLNLTLMRRKNTCGN	Homo sapiens
2080	190602	G Protein-Coupled Receptor GPCR150	CAB55314.1	620	EEVTLVQAIRITSYMNE	Homo sapiens
2081	190623	Melanopsin	AAF24978.1	2137	CKNGESLWQRQLQSE	Homo sapiens
2082	190623	Melanopsin	AAF24978.1	2138	RHSRPYPYSRTHIRST	Homo sapiens
2083	190623	Melanopsin	AAF24978.1	2139	TSHTSNLSWISIRRRQE	Homo sapiens
2084	190623	Melanopsin	AAF24978.1	2140	DLEAKAPRPQGHEAET	Homo sapiens
2085	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1735	KLQRRPVAVDVLNLTASD	Homo sapiens
2086	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1736	KTRPRLGQAGLVSVAC	Homo sapiens
2087	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1737	EFSGDISHSQGTNGTC	Homo sapiens
2088	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1738	SRLVWILGRGGSHRRQRR	Homo sapiens
2089	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1739	GQWQQESSMELKEQKGG	Homo sapiens
2090	190627	G Protein-Coupled Receptor GPR41 & GPR42	NP_005295.1	1740	EEQRADRPAAERKTSEHSQGC	Homo sapiens
2091	190627	G Protein-Coupled	NP_005295.1	2569	MDTGPDQSYFSGNIHWVFSV	Homo sapiens

2092	190701	Receptor GPR41 & GPR42 C-C Chemokine Receptor 11	AAF61299.1	1441	VAIVAYYKKQRIKTDV	Homo sapiens
2093	190701	C-C Chemokine Receptor 11	AAF61299.1	1442	VATKVPSSQSGVGKPCWII	Homo sapiens
2094	190701	C-C Chemokine Receptor 11	AAF61299.1	1443	CNMSKRMDIAIQVTESI	Homo sapiens
2095	190701	C-C Chemokine Receptor 11	AAF61299.1	1444	RQSVEEFPDSEGPTPE	Homo sapiens
2096	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1741	GHPPSGGGAESADTEARVR	Homo sapiens
2097	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1742	HSVASALKSHRTRGHGRGDC	Homo sapiens
2098	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1743	KGGAAVAGGRPTGASARR	Homo sapiens
2099	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1744	CLVRREFRKALKSLWR	Homo sapiens
2100	190705	G Protein-Coupled Receptor SALPR	NP_057652.1	1745	RPFTATTKPEHEDQGLQ	Homo sapiens
2101	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	339	AFPPVLDVGTSYFIREEDQC	Homo sapiens
2102	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	340	HDRRKMKPVQFVAASQN	Homo sapiens
2103	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	341	RRRLVLDEFKMEKRISR	Homo sapiens
2104	190711	G Protein-Coupled Receptor GPR85 (SREB2)	CAB82307.1	342	LRRCFSTILLYCRKSLPRE	Homo sapiens
2105	190725	G Protein-Coupled Receptor GPR26	LR26	554	PLTLAGVVARQPAGDRLC	Homo sapiens
2106	190725	G Protein-Coupled Receptor GPR26	LR26	555	CSRRPDERLRFVFTGA	Homo sapiens
2107	190725	G Protein-Coupled Receptor GPR26	LR26	557	CKEILNRLHRRSIHSSG	Homo sapiens
2108	190725	G Protein-Coupled Receptor GPR26	LR26	567	CLEEQRRRRQRATKKIST	Homo sapiens
2109	190741	Sreb3	LR9	516	EPEEVSGALSPPSASAYVK	Homo sapiens
2110	190741	Sreb3	LR9	519	NGHAASRRLLGMDEVKGEK	Homo sapiens
2111	190741	Sreb3	LR9	526	KKCLRTHAPCWGTGGAPAPR	Homo sapiens
2112	190741	Sreb3	LR9	527	VLMAATHAVVGKLLFEYR	Homo sapiens

2113	190742	G Protein-Coupled Receptor H7BA62	LR23	550	RRAPGPPSDTFVFNALAD	Homo sapiens
2114	190742	G Protein-Coupled Receptor H7BA62	LR23	551	QRRQRRRQDSRVVARSVR	Homo sapiens
2115	190742	G Protein-Coupled Receptor H7BA62	LR23	552	RREPRQALAGTFRDLRSR	Homo sapiens
2116	190742	G Protein-Coupled Receptor H7BA62	LR23	553	KQVGRRWVASNPRESRPS	Homo sapiens
2117	190743	G Protein-Coupled Receptor GPRC5D	LR32	568	KDCIESTGDYFLLCDAEGP	Homo sapiens
2118	190743	G Protein-Coupled Receptor GPRC5D	LR32	569	VENQELSRGTFLGDSGR	Homo sapiens
2119	190743	G Protein-Coupled Receptor GPRC5D	LR32	570	GDSGSREVLLQEKQKKNHA	Homo sapiens
2120	190743	G Protein-Coupled Receptor GPRC5D	LR32	571	SMILRGNPQFQRQPQWDDP	Homo sapiens
2121	190744	G Protein-Coupled Receptor GPRC5C	LR34	529	KVPSEELTSSSHGPPPTAR	Homo sapiens
2122	190744	G Protein-Coupled Receptor GPRC5C	LR34	532	RGSGEGGPQGNSSAGWAV	Homo sapiens
2123	190744	G Protein-Coupled Receptor GPRC5C	LR34	535	QDTKKRSLLGTVFFLLGT	Homo sapiens
2124	190744	G Protein-Coupled Receptor GPRC5C	LR34	538	KEQKGQSMFVENKAFSMDE	Homo sapiens
2125	190745	G Protein-Coupled Receptor LGR7	LR40	560	TATEIRNQVKKEMILAKR	Homo sapiens
2126	190745	G Protein-Coupled Receptor LGR7	LR40	561	NYRQRKSMDSKGQKYAPS	Homo sapiens
2127	190745	G Protein-Coupled Receptor LGR7	LR40	565	SCSNLTVLVMIRKNKINHIN	Homo sapiens
2128	190745	G Protein-Coupled Receptor LGR7	LR40	566	DELDLGSNKIENLPPIFKD	Homo sapiens
2129	190748	GPCR Ls190748	LR47	546	QLSSPSRPTQKTLCSLR	Homo sapiens
2130	190748	GPCR Ls190748	LR47	547	DMLKIASMHQQIRKMEHAG	Homo sapiens
2131	190748	GPCR Ls190748	LR47	548	AGGYRSPRTPSDFKALRTVS	Homo sapiens
2132	190748	GPCR Ls190748	LR47	549	RESSCHIVTISSEFDG	Homo sapiens
2133	190748	GPCR Ls190748	LR47	1481	GVKKVLISFLFLSARNC	Homo sapiens
2134	190748	GPCR Ls190748	LR47	1482	NSLNPLYAYWQKEVRLQ	Homo sapiens
2135	190749	G Protein-Coupled	LR48	467	RRAALRPPRPARGSLRSD	Homo sapiens

2136	190749	Receptor GPR62	LR48	468	RPVRLALGRLSRRALPGPVR	Homo sapiens
2137	190749	G Protein-Coupled Receptor GPR62	LR48	510	DSRLSILPPLRPRLPGGK	Homo sapiens
2138	190749	G Protein-Coupled Receptor GPR62	LR48	511	RPPEGPAVGPSEAEQIPE	Homo sapiens
2139	190749	G Protein-Coupled Receptor GPR62	LR48	2702	VVARRAALRPPrPA	Homo sapiens
2140	190749	G Protein-Coupled Receptor GPR62	LR48	2703	PSEAEQIPELAGGR	Homo sapiens
2141	190749	G Protein-Coupled Receptor GPR62	LR48	2704	GPSEAEQIPELAG	Homo sapiens
2142	190774	Histamine H4 Receptor	NP_067637.2	2235	PDNSTINLSLSTRVTLAFF	Homo sapiens
2143	190774	Histamine H4 Receptor	NP_067637.2	2237	VVDKNLRHRSSVFFLN	Homo sapiens
2144	190774	Histamine H4 Receptor	NP_067637.2	2240	LYPHTLFEWDFGKEIC	Homo sapiens
2145	190774	Histamine H4 Receptor	NP_067637.2	2242	TQHTGVLIKIVTLMVAV	Homo sapiens
2146	190774	Histamine H4 Receptor	NP_067637.2	2243	VNGPMILVSESWKDEGSEC	Homo sapiens
2147	190774	Histamine H4 Receptor	NP_067637.2	2244	CEPGFFSEWYLAITSFL	Homo sapiens
2148	190774	Histamine H4 Receptor	NP_067637.2	2245	AYFNMINVYWSLWKRDLHSLRC	Homo sapiens
2149	190774	Histamine H4 Receptor	NP_067637.2	2246	CGHSFRGRLSSRRSL	Homo sapiens
2150	190774	Histamine H4 Receptor	NP_067637.2	2247	IASKMGFSQSDSVLHQRE	Homo sapiens
2151	190774	Histamine H4 Receptor	NP_067637.2	2249	IVLSFYSSATGPKSVWYRIA	Homo sapiens
2152	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2085	IIRVTVPGKTGTAC	Homo sapiens
2153	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2086	SPWTNDPKERINVAVA	Homo sapiens
2154	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2087	RIRELLQGMVKEIGIAVD	Homo sapiens
2155	190823	Formyl Peptide Receptor 1 (FPR1)	NP_002020.1	2088	TQTSDTATNSTLPSAE	Homo sapiens
2156	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	481	TEVPDSAQTSNTHITSAS	Homo sapiens
2157	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	522	GDTAVERLNVFITMAKV	Homo sapiens
2158	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	523	MSLAKRVMITGLWIFTI	Homo sapiens
2159	190824	Formyl Peptide Receptor-like 2 (FPR2)	LR14	525	LHFIFGFTVPMISITV	Homo sapiens

2160	190948	like 2 (FPRL2)	NP_038475.1	1658	DELLEAPGDLETLPLRQQHC	Homo sapiens
2161	190948	EMR2 Hormone Receptor	NP_038475.1	1659	CVASHLLDGLDVLRLGSKN	Homo sapiens
2162	190948	EMR2 Hormone Receptor	NP_038475.1	1660	KSGDPGPSVVGVSIPG	Homo sapiens
2163	190948	EMR2 Hormone Receptor	NP_038475.1	1661	SKGIRKLKTESEMHTLSS	Homo sapiens
2164	190948	EMR2 Hormone Receptor	NP_038475.1	1662	ELSLEVQKQVDRSVTLRQNG	Homo sapiens
2165	190948	EMR2 Hormone Receptor	NP_038475.1	1663	EPEKQMLLHETHQGLLDGGS	Homo sapiens
2166	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1492	KRMQKRSVTALMVNLALAD	Homo sapiens
2167	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1493	RPFVSQKLRTKAMARR	Homo sapiens
2168	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1494	ASYSDIGRRLQARRFR	Homo sapiens
2169	190955	Leukotriene B4 Receptor BLT1	NP_000743.1	1495	LEGTGSEASSTRRGGS	Homo sapiens
2170	191039	Trace Amine Receptor 1 (TA1)	LR122	2039	RKALKMMLFGKIFQKDSRC	Homo sapiens
2171	191039	Trace Amine Receptor 1 (TA1)	LR122	2040	QIGLEMKNGISQSKERKAV	Homo sapiens
2172	191039	Trace Amine Receptor 1 (TA1)	LR122	2041	RIVLAKEQARLISDANQK	Homo sapiens
2173	191039	Trace Amine Receptor 1 (TA1)	LR122	2042	ELNFKGAEIYYKHVHC	Homo sapiens
2174	191039	Trace Amine Receptor 1 (TA1)	LR122	2043	CVKNINWSNDVRASLYS	Homo sapiens
2175	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1569	SAEPPADWDGAGGSYRLRG	Homo sapiens
2176	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1571	GIVRRVRVSVKRVSVLN	Homo sapiens
2177	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1572	RNEEFRRSVRSVLPGVGDA	Homo sapiens
2178	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1573	CEEEESWAGRRIPVSLLYSG	Homo sapiens
2179	191132	G Protein-Coupled Receptor 88 (GPR88)	NP_071332.1	1651	CYLGIIVRRVRVSVKRVSV	Homo sapiens
2180	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1544	KELYSYVVRTRGVGKVPR	Homo sapiens
2181	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1545	ILTNRQPRDKNVKKCS	Homo sapiens

2182	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1546	CPNSATLSQDNRKKEQDGG	Homo sapiens
2183	191168	P2Y12 Platelet ADP Receptor	NP_073625.1	1570	TTRPFKTSNPKNLLGAK	Homo sapiens
2184	191193	Trace Amine Receptor 3 (TA3)	LR88	1969	ANEEGIEELVVA	Homo sapiens
2185	191193	Trace Amine Receptor 3 (TA3)	LR88	2316	RKIESTASQAQSS	Homo sapiens
2186	191193	Trace Amine Receptor 3 (TA3)	LR88	2571	LVDAVIDAYMINFI	Homo sapiens
2187	191193	Trace Amine Receptor 3 (TA3)	LR88	2573	RTDSSITNLFSEEVET	Homo sapiens
2188	191196	G Protein-Coupled Receptor GPR80	IP_13092	1864	NASDFPDYAAAFGNCTDE	Homo sapiens
2189	191196	G Protein-Coupled Receptor GPR80	IP_13092	1865	TFUTSTNRTNRSACLD	Homo sapiens
2190	191196	G Protein-Coupled Receptor GPR80	IP_13092	1866	TLTHGLQTDSCCLKQKARR	Homo sapiens
2191	191196	G Protein-Coupled Receptor GPR80	IP_13092	1867	RLSISCSIENQIHEA	Homo sapiens
2192	191196	G Protein-Coupled Receptor GPR80	IP_13092	1868	QQAVCSTVRCKVSGNLE	Homo sapiens
2193	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2749	QDIAEVDHSEGGCF	Homo sapiens
2194	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2750	RKQWRLLQQPILKLA	Homo sapiens
2195	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2751	CSISINFPSFFTVMTC	Homo sapiens
2196	191218	MrgX2 G Protein-Coupled Receptor	AAK91805.1	2752	QWFLILWIWKDSVDV	Homo sapiens
2197	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2575	AFLSDNTIEVRINRTLKK	Homo sapiens
2198	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2576	QETKNEFRNLQIQSKC	Homo sapiens
2199	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2577	CNNKTHWAPVRSTM	Homo sapiens
2200	191222	G Protein-Coupled Receptor Ls191222	ENSP00000199719	2581	TKMAEYDLQNDVFIIPD	Homo sapiens
2201	193511	EGF-Like Module-Containing	AAK15076.1	1665	CQDTSSKTEGRKELQKIV	Homo sapiens

2202	193511	Mucin-Like Receptor EMR3	AAK15076.1	1666	RDVESKVLLETALKDPEQK	Homo sapiens
2203	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1667	KIQNDSVAIETQAIDNC	Homo sapiens
2204	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1668	CSEERKTFNLNVQMNSMDIR	Homo sapiens
2205	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1669	EEMDKKDDQVYLNQVWSAA	Homo sapiens
2206	193511	EGF-Like Module-Containing Mucin-Like Receptor EMR3	AAK15076.1	1670	SKSVTLTFQHVVKMTPSTK	Homo sapiens
2207	193516	Mucin-Like Receptor EMR3	CAC21687.1	2142	CLLLPTAVIVFSYVVKIAK	Homo sapiens
2208	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2144	RPDSIPQLSVVPTLLA	Homo sapiens
2209	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2145	CQTGGLKATKKKSLG	Homo sapiens
2210	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2146	RLHTVTIVRKSSAVLE	Homo sapiens
2211	193516	G Protein-Coupled Receptor dJ402H5.1	CAC21687.1	2620	PTAVIVFSYVVKIAKV	Homo sapiens
2212	193524	Receptor dJ402H5.1	NP_001398.1	1947	KLAQLRLREVGTGHTDHYFSQD	Homo sapiens
2213	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	1948	CALQTWGSERRRLGLDTSKD	Homo sapiens
2214	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2734	RGRRQSARNSRGPPEQPNE	Homo sapiens
2215	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2735	RNSRGPPEQPNEELG	Homo sapiens
2216	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2736	AQVREDVRPHTVVLRL	Homo sapiens
2217	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2742	QLDQVPSRHPSPRE	Homo sapiens

2218	193524	Cadherin EGF LAG Seven-Pass G-Type Receptor 3 (CELSR3)	NP_001398.1	2744	LDLSRSSNSREQLDQV	Homo sapiens
2219	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1903	REEHHFMVDARNRSPLYSC	Homo sapiens
2220	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1904	PGPAPGGEEAADPRASRR	Homo sapiens
2221	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1905	CPRPSGSHKEAYSERPGGLL	Homo sapiens
2222	193914	Neuropeptide FF 1 Receptor	NP_071429.1	1906	PSSGAPRPGRLPLNRVA	Homo sapiens
2223	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2018	FLGKNDDIKTKKELVN	Homo sapiens
2224	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2019	QVTYRDSKEKRDLRNFLK	Homo sapiens
2225	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2020	CERTKIWGTFKINERFTND	Homo sapiens
2226	194319	G Protein-Coupled Receptor FLJ22684	NP_079324.1	2021	SKYANGIEIQLKKAYER	Homo sapiens
2227	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2022	CIWVFIVRTSLHAP	Homo sapiens
2228	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2023	KILALFWDFSREISFEAC	Homo sapiens
2229	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2024	CVHQDVMKLAYADTLP	Homo sapiens
2230	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2027	RFGNSLHPIVRVVMGD	Homo sapiens
2231	194431	Olfactory Receptor, Family 51, Subfamily E, Member 2	NP_110401.1	2028	KTKQIRTRVLAMFKISC	Homo sapiens
2232	194743	FLJ14454	LR77	1855	KTDENEQDQSASVDMVFSP	Homo sapiens
2233	194743	FLJ14454	LR77	1856	KKDYQYPKSLDILSNVGC	Homo sapiens
2234	194743	FLJ14454	LR77	1857	KNLQTSDDGINNIDFDNN	Homo sapiens
2235	194743	FLJ14454	LR77	1858	SQNGNNPQWELDYRQEKIC	Homo sapiens
2236	194743	FLJ14454	LR77	1859	RPRLRVKMYNFLRSLPTLHE	Homo sapiens
2237	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1845	CNPSPVKGRVMKLTGM	Homo sapiens
2238	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1846	RLTRWRTRYKTIRINLG	Homo sapiens
2239	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1847	KDGVESCAFDLTSPDDVL	Homo sapiens
2240	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1848	LSGNFQKRLPQIQRRATE	Homo sapiens

2241	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1849	TIIRSRKKTVPDIVIC	Homo sapiens
2242	194745	G Protein-Coupled Receptor SLT/MCH2	AAK32193.1	1907	RRATEKEINNMGNTLKS HF	Homo sapiens
2243	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2089	CRIEGDTISQVMPPLLIVA	Homo sapiens
2244	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2090	RRHWAFGDIPCRVGLFTL	Homo sapiens
2245	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2091	CESFIMESANGWHDIM	Homo sapiens
2246	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2092	CSFKIVWSLRRRQQLARQAR	Homo sapiens
2247	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2093	RRRQQLARQARMKKATR	Homo sapiens
2248	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2094	TVPSSACDPSVHGALH	Homo sapiens
2249	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2095	CSLKPQPGHSGTKQRP EEM	Homo sapiens
2250	194756	Chemokine Receptor FKS80/GPR81	AAK29071.1	2096	CISVANSFQSQSDGQWD	Homo sapiens
2251	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2034	RTRKQHSEATNSSNRV FVC	Homo sapiens
2252	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2035	RVISQISADNYKIHGDPSA	Homo sapiens
2253	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2036	TSSARTSNAKPFHSD	Homo sapiens
2254	194757	G Protein-Coupled Receptor Ls194757	CAB82385.1	2037	NGTRPGMASTKLSPWD	Homo sapiens
2255	194858	G Protein-Coupled Receptor Ls194858	LR84	1933	LGIAWDRRLRSP PAGC	Homo sapiens
2256	194858	G Protein-Coupled Receptor Ls194858	LR84	1934	GERYMAVLRPLQPPGS	Homo sapiens
2257	194858	G Protein-Coupled Receptor Ls194858	LR84	1935	CRDEPSALARALTWRQAR	Homo sapiens
2258	194858	G Protein-Coupled Receptor Ls194858	LR84	1936	AAQRCLQG L WGRASRD	Homo sapiens
2259	194858	G Protein-Coupled Receptor Ls194858	LR84	1937	RDSPGPSIAYHPSSQSSVD	Homo sapiens
2260	194878	MrgX3 G Protein-Coupled	AAK91806.1	2748	ALFSRIHLDWKVLF	Homo sapiens

2261	194903	Receptor G Protein-Coupled Receptor GPCR83	ENSP00000198236	1991	CIAFKDIMPFSQVVGDER	Homo sapiens
2262	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1992	KAFEEAYARADKKAPRPC	Homo sapiens
2263	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1993	ETKIQWHGKDNQVPSVC	Homo sapiens
2264	194903	G Protein-Coupled Receptor GPCR83	ENSP00000198236	1994	CSYLGKDLPENVNEAK	Homo sapiens
2265	194904	WO0034334-hFB41A	LR114	2011	SDYDMPLEDEDEVINS	Homo sapiens
2266	194904	WO0034334-hFB41A	LR114	2014	NPHGAHATSPFNFVS	Homo sapiens
2267	194905	G Protein-Coupled Receptor MGC7035	LR112	1986	ERALPRTYMASVYNTRHVC	Homo sapiens
2268	194905	G Protein-Coupled Receptor MGC7035	LR112	1987	CAKMQNAEAAADATLVF	Homo sapiens
2269	194905	G Protein-Coupled Receptor MGC7035	LR112	1988	DRDTGRLEPSAHRLLVATVC	Homo sapiens
2270	194905	G Protein-Coupled Receptor MGC7035	LR112	1989	RYMINGSFPSKLQRLMKKLPC	Homo sapiens
2271	194907	G Protein-Coupled Receptor 14273	LR116	2003	CARAAAGDAPLRSLQANRTR	Homo sapiens
2272	194907	G Protein-Coupled Receptor 14273	LR116	2004	VISYSKILQITKASRKRL	Homo sapiens
2273	194907	G Protein-Coupled Receptor 14273	LR116	2005	TVSLAYSRSHQIRVSQQD	Homo sapiens
2274	194907	G Protein-Coupled Receptor 14273	LR116	2006	CTWFPEKGAILDTSVKRND	Homo sapiens
2275	194908	G Protein-coupled Receptor Gpcrb4	LR117	2007	TYGRDNGQLLGERVARRDIC	Homo sapiens
2276	194908	G Protein-coupled Receptor Gpcrb4	LR117	2008	QETLPTLQPNQNMVTSEERQR	Homo sapiens
2277	194908	G Protein-coupled Receptor Gpcrb4	LR117	2009	RTSQSYTCNQECDNCLNAT	Homo sapiens
2278	194908	G Protein-coupled Receptor Gpcrb4	LR117	2010	RPQSHPRTPDDPKITVSC	Homo sapiens
2279	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2312	VARRQAKKIENTGSKT	Homo sapiens
2280	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2313	KVIVTGQVLKNSSA	Homo sapiens

2281	194957	Trace Amine Receptor 4 (TA4)	AAK71243.1	2318	MSSNSSLLVAVQLC	Homo sapiens
2282	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2307	IAKQQAIIETSSKV	Homo sapiens
2283	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2314	MTSNFSQPWWQLC	Homo sapiens
2284	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2319	KULSGDVLKAS	Homo sapiens
2285	194958	Trace Amine Receptor 5 (TA5)	AAK71244.1	2570	SGDVLKASSSTISLFLE	Homo sapiens
2286	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2727	QDKPEVDKGGEGQLPEESL	Homo sapiens
2287	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2728	LINISHLIRKILVS	Homo sapiens
2288	194989	MrgX4 G Protein-Coupled Receptor	AAK91807.1	2729	MDPTVPVFGTKL	Homo sapiens
2289	195015	G Protein-Coupled Receptor GPR82	AAL26482	2706	RYATLMQKDSQETT	Homo sapiens
2290	195015	G Protein-Coupled Receptor GPR82	AAL26482	2707	KIFYGHLLKKFRQPNF	Homo sapiens
2291	195015	G Protein-Coupled Receptor GPR82	AAL26482	2708	YSVIEATEGEESLC	Homo sapiens
2292	195015	G Protein-Coupled Receptor GPR82	AAL26482	2715	CTSIMEKDLTYSSVKR	Homo sapiens

SEQ ID NO:	LS_ID	Gene	Antibody Company Name
1	127	5-HT1A Receptor	Chemicon
1	127	5-HT1A Receptor	Research Diagnostics
1	127	5-HT1A Receptor	Santa Cruz
3	128	5-HT1B Receptor	Chemicon
3	128	5-HT1B Receptor	Research Diagnostics
3	128	5-HT1B Receptor	Santa Cruz
5	129	5-HT1D Receptor	Research Diagnostics
5	129	5-HT1D Receptor	Santa Cruz
11	132	5-HT2A Receptor	Calbiochem
11	132	5-HT2A Receptor	Research Diagnostics
13	133	5-HT2B Receptor	Research Diagnostics
15	134	5-HT2C Receptor	Research Diagnostics
15	134	5-HT2C Receptor	Santa Cruz
21	139	5-HT7 Receptor	Calbiochem
23	272	Adenosine A1 Receptor	Alpha Diagnostic Int.
23	272	Adenosine A1 Receptor	Calbiochem
23	272	Adenosine A1 Receptor	Santa Cruz
25	273	Adenosine A2a Receptor	Alpha Diagnostic Int.
25	273	Adenosine A2a Receptor	Calbiochem
25	273	Adenosine A2a Receptor	Chemicon
25	273	Adenosine A2a Receptor	Santa Cruz
27	274	Adenosine A2b Receptor	Alpha Diagnostic Int.
27	274	Adenosine A2b Receptor	Chemicon
27	274	Adenosine A2b Receptor	Santa Cruz
29	275	Adenosine A3 Receptor	Alpha Diagnostic Int.
29	275	Adenosine A3 Receptor	Santa Cruz
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Alpha Diagnostic Int.
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Chemicon
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Research Diagnostics
31	309	Melanocortin 2 Receptor (adrenocorticotrophic hormone) (MC2R)	Santa Cruz
35	377	Alpha 1b-adrenoceptor	Research Diagnostics
35	377	Alpha 1b-adrenoceptor	Santa Cruz
37	379	Alpha 1c-adrenoceptor	Research Diagnostics
37	379	Alpha 1c-adrenoceptor	Santa Cruz
39	387	Alpha 2a-adrenoceptor	Calbiochem
39	387	Alpha 2a-adrenoceptor	Santa Cruz
41	388	Alpha 2b-adrenoceptor	Research Diagnostics
41	388	Alpha 2b-adrenoceptor	Santa Cruz
43	389	Alpha 2c-adrenoceptor	Research Diagnostics
43	389	Alpha 2c-adrenoceptor	Santa Cruz
45	599	Bradykinin B1 Receptor	Research Diagnostics
49	635	Beta-1 adrenoceptor	Calbiochem
49	635	Beta-1 adrenoceptor	Research Diagnostics

49	635	Beta-1 adrenoceptor	Santa Cruz
51	640	Beta-2 adrenoceptor	Research Diagnostics
51	640	Beta-2 adrenoceptor	Santa Cruz
53	643	Beta-3 adrenoceptor	Alpha Diagnostic Int.
53	643	Beta-3 adrenoceptor	Chemicon
53	643	Beta-3 adrenoceptor	Research Diagnostics
53	643	Beta-3 adrenoceptor	Santa Cruz
57	692	Bombesin Receptor Subtype-3	Alpha Diagnostic Int.
57	692	Bombesin Receptor Subtype-3	Chemicon
59	729	CXC Chemokine Receptor 5	Research Diagnostics
59	729	CXC Chemokine Receptor 5	Santa Cruz
61	735	C-C Chemokine Receptor 1	Calbiochem
61	735	C-C Chemokine Receptor 1	Capralogics
61	735	C-C Chemokine Receptor 1	Chemicon
61	735	C-C Chemokine Receptor 1	Research Diagnostics
61	735	C-C Chemokine Receptor 1	Santa Cruz
63	737	C-C Chemokine Receptor 3	Research Diagnostics
63	737	C-C Chemokine Receptor 3	Santa Cruz
65	738	C-C Chemokine Receptor 4	Capralogics
65	738	C-C Chemokine Receptor 4	Research Diagnostics
65	738	C-C Chemokine Receptor 4	Santa Cruz
67	741	C-C Chemokine Receptor 7	Research Diagnostics
67	741	C-C Chemokine Receptor 7	Santa Cruz
69	742	C-C Chemokine Receptor 8	Chemicon
70	742	C-C Chemokine Receptor 8	Chemicon
71	742	C-C Chemokine Receptor 8	Chemicon
73	752	CXC Chemokine Receptor 3	Research Diagnostics
73	752	CXC Chemokine Receptor 3	Santa Cruz
73	752	CXC Chemokine Receptor 3	Zymed
75	753	CXC Chemokine Receptor 4	Biosource
75	753	CXC Chemokine Receptor 4	Calbiochem
75	753	CXC Chemokine Receptor 4	Capralogics
75	753	CXC Chemokine Receptor 4	Chemicon
75	753	CXC Chemokine Receptor 4	eBioscience
75	753	CXC Chemokine Receptor 4	Research Diagnostics
75	753	CXC Chemokine Receptor 4	Santa Cruz
77	755	Complement Component 3a Receptor 1	Chemokine.com
79	758	Complement Component 5a Receptor 1	Santa Cruz
83	832	Cannabinoid Receptor 1	Alpha Diagnostic Int.
83	832	Cannabinoid Receptor 1	Biosource
83	832	Cannabinoid Receptor 1	Calbiochem
83	832	Cannabinoid Receptor 1	Cayman
83	832	Cannabinoid Receptor 1	Chemicon
83	832	Cannabinoid Receptor 1	Santa Cruz
85	833	Cannabinoid Receptor 2	Alpha Diagnostic Int.
85	833	Cannabinoid Receptor 2	Calbiochem
85	833	Cannabinoid Receptor 2	Cayman
85	833	Cannabinoid Receptor 2	Chemicon
85	833	Cannabinoid Receptor 2	Santa Cruz
97	1240	Dopamine Receptor D1	Alpha Diagnostic Int.
97	1240	Dopamine Receptor D1	Biogenesis

97	1240	Dopamine Receptor D1	Calbiochem
97	1240	Dopamine Receptor D1	Chemicon
97	1240	Dopamine Receptor D1	FabGennix through Abcam
97	1240	Dopamine Receptor D1	Research Diagnostics
97	1240	Dopamine Receptor D1	Santa Cruz
99	1241	Dopamine Receptor D5	Alpha Diagnostic Int.
99	1241	Dopamine Receptor D5	Biogenesis
99	1241	Dopamine Receptor D5	Calbiochem
99	1241	Dopamine Receptor D5	Chemicon
99	1241	Dopamine Receptor D5	Santa Cruz
101	1242	Dopamine Receptor D2	Alpha Diagnostic Int.
101	1242	Dopamine Receptor D2	Biogenesis
101	1242	Dopamine Receptor D2	Calbiochem
101	1242	Dopamine Receptor D2	Chemicon
101	1242	Dopamine Receptor D2	DPC Biermann/Acris
101	1242	Dopamine Receptor D2	FabGennix through Abcam
101	1242	Dopamine Receptor D2	Research Diagnostics
101	1242	Dopamine Receptor D2	Santa Cruz
103	1243	Dopamine Receptor D3	Alpha Diagnostic Int.
103	1243	Dopamine Receptor D3	Biogenesis
103	1243	Dopamine Receptor D3	Calbiochem
103	1243	Dopamine Receptor D3	Chemicon
103	1243	Dopamine Receptor D3	Research Diagnostics
103	1243	Dopamine Receptor D3	Santa Cruz
103	1243	Dopamine Receptor D3	Zymed
105	1244	Dopamine Receptor D4	Alpha Diagnostic Int.
105	1244	Dopamine Receptor D4	Biogenesis
105	1244	Dopamine Receptor D4	Calbiochem
105	1244	Dopamine Receptor D4	Chemicon
105	1244	Dopamine Receptor D4	DPC Biermann/Acris
105	1244	Dopamine Receptor D4	Santa Cruz
107	1267	Opioid Receptor, delta 1 (OPRD1)	Biosource
107	1267	Opioid Receptor, delta 1 (OPRD1)	Calbiochem
107	1267	Opioid Receptor, delta 1 (OPRD1)	DPC Biermann/Acris
107	1267	Opioid Receptor, delta 1 (OPRD1)	Santa Cruz
113	1486	Endothelin B Receptor	Biogenesis
113	1486	Endothelin B Receptor	Capralogics
113	1486	Endothelin B Receptor	DPC Biermann/Acris
113	1486	Endothelin B Receptor	Fitzgerald Industries Int.
113	1486	Endothelin B Receptor	Research Diagnostics
115	1488	Endothelin A Receptor	Biogenesis
115	1488	Endothelin A Receptor	Capralogics
115	1488	Endothelin A Receptor	DPC Biermann/Acris
115	1488	Endothelin A Receptor	Fitzgerald Industries Int.
115	1488	Endothelin A Receptor	Research Diagnostics
117	1598	Calcium-Sensing Receptor (CASR)	Chemicon
117	1598	Calcium-Sensing Receptor (CASR)	DPC Biermann/Acris

121	1681	Follicle Stimulating Hormone Receptor	Biogenesis
121	1681	Follicle Stimulating Hormone Receptor	DPC Biermann/Acris
121	1681	Follicle Stimulating Hormone Receptor	Santa Cruz
125	1762	Galanin Receptor GalR1	Alpha Diagnostic Int.
135	1925	Gonadotropin-Releasing Hormone Receptor	Biocarta
135	1925	Gonadotropin-Releasing Hormone Receptor	Lab Vision Corporation/NeoMarkers
135	1925	Gonadotropin-Releasing Hormone Receptor	Research Diagnostics
135	1925	Gonadotropin-Releasing Hormone Receptor	Santa Cruz
139	1951	Growth Hormone Secretagogue Receptor	Santa Cruz
143	2120	Histamine H1 Receptor	Alpha Diagnostic Int.
143	2120	Histamine H1 Receptor	Chemicon
145	2121	Histamine H2 Receptor	Alpha Diagnostic Int.
145	2121	Histamine H2 Receptor	Chemicon
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Biosource
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Calbiochem
147	2783	Opioid Receptor, kappa 1 (OPRK1)	DPC Biermann/Acris
147	2783	Opioid Receptor, kappa 1 (OPRK1)	Santa Cruz
151	2976	Lysophosphatidic Acid Receptor Edg2	Exalpha Biologicals
155	3057	Melanocortin 3 Receptor (MC3R)	Alpha Diagnostic Int.
155	3057	Melanocortin 3 Receptor (MC3R)	Chemicon
155	3057	Melanocortin 3 Receptor (MC3R)	Research Diagnostics
155	3057	Melanocortin 3 Receptor (MC3R)	Santa Cruz
157	3058	Melanocortin 4 Receptor (MC4R)	Alpha Diagnostic Int.
157	3058	Melanocortin 4 Receptor (MC4R)	Chemicon
157	3058	Melanocortin 4 Receptor (MC4R)	Research Diagnostics
157	3058	Melanocortin 4 Receptor (MC4R)	Santa Cruz
159	3059	Melanocortin 5 Receptor (MC5R)	Alpha Diagnostic Int.
159	3059	Melanocortin 5 Receptor (MC5R)	Chemicon
159	3059	Melanocortin 5 Receptor (MC5R)	Research Diagnostics

159	3059	Melanocortin 5 Receptor (MC5R)	Santa Cruz
161	3061	Melanocortin 1 Receptor (MC1R)	Alpha Diagnostic Int.
161	3061	Melanocortin 1 Receptor (MC1R)	Chemicon
161	3061	Melanocortin 1 Receptor (MC1R)	Research Diagnostics
161	3061	Melanocortin 1 Receptor (MC1R)	Santa Cruz
169	3093	Metabotropic Glutamate Receptor 1	Chemicon
171	3094	Metabotropic Glutamate Receptor 2	Chemicon
173	3095	Metabotropic Glutamate Receptor 3	Chemicon
175	3096	Metabotropic Glutamate Receptor 4	Zymed
177	3097	Metabotropic Glutamate Receptor 5	Chemicon
183	3100	Metabotropic Glutamate Receptor 8	Chemicon
185	3212	Opioid mu-type Receptor	Biosource
185	3212	Opioid mu-type Receptor	Calbiochem
185	3212	Opioid mu-type Receptor	Chemicon
185	3212	Opioid mu-type Receptor	DPC Biermann/Acris
185	3212	Opioid mu-type Receptor	Santa Cruz
187	3223	Muscarinic acetylcholine Receptor M1	Biogenesis
187	3223	Muscarinic acetylcholine Receptor M1	Calbiochem
187	3223	Muscarinic acetylcholine Receptor M1	Chemicon
187	3223	Muscarinic acetylcholine Receptor M1	Santa Cruz
189	3224	Muscarinic acetylcholine Receptor M2	Biogenesis
189	3224	Muscarinic acetylcholine Receptor M2	Calbiochem
189	3224	Muscarinic acetylcholine Receptor M2	Chemicon
189	3224	Muscarinic acetylcholine Receptor M2	Santa Cruz
191	3226	Muscarinic acetylcholine Receptor M4	Biogenesis
192	3226	Muscarinic acetylcholine Receptor M4	Biogenesis
191	3226	Muscarinic acetylcholine Receptor M4	Chemicon
192	3226	Muscarinic acetylcholine Receptor M4	Chemicon
191	3226	Muscarinic acetylcholine Receptor M4	Santa Cruz

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192	3226	Muscarinic acetylcholine Receptor M4	Santa Cruz
194	3227	Muscarinic Acetylcholine Receptor M5	Biogenesis
194	3227	Muscarinic Acetylcholine Receptor M5	Santa Cruz
200	3404	Neuropeptide Y Receptor Type 2	Biogenesis
202	3405	Neuropeptide Y Receptor Type 4	Biogenesis
206	3408	Neurotensin Receptor Type 1	Santa Cruz
208	3452	Opiate Receptor-Like 1 (OPRL1)	Santa Cruz
214	3582	Oxytocin Receptor	Santa Cruz
216	3589	Purinergic Receptor P2Y, G-protein coupled, 2 (P2RY2)	Chemicon
216	3589	Purinergic Receptor P2Y, G-protein coupled, 2 (P2RY2)	Zymed
218	3595	Purinergic Receptor P2Y1	Chemicon
218	3595	Purinergic Receptor P2Y1	Zymed
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Biocarta
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Lab Vision Corporation/NeoMarkers
228	3640	Parathyroid Hormone Receptor 1 (PTHr1)	Santa Cruz
236	3846	Sphingolipid Receptor Edg1	Exalpa Biologicals
238	3847	Sphingolipid Receptor Edg3	Exalpa Biologicals
240	3848	C-C Chemokine Receptor 9	Research Diagnostics
248	3852	CX3C Chemokine Fractalkine Receptor 1	Chemicon
248	3852	CX3C Chemokine Fractalkine Receptor 1	Chemokine.com
248	3852	CX3C Chemokine Fractalkine Receptor 1	eBioscience
250	3853	G Protein-Coupled Receptor GPR15	Santa Cruz
264	3860	G Protein-Coupled Receptor SLC/MCH1	Alpha Diagnostic Int.
264	3860	G Protein-Coupled Receptor SLC/MCH1	Santa Cruz
295	3927	Prostaglandin E Receptor EP4	Cayman
299	4051	Proteinase-Activated Receptor 2	Research Diagnostics
299	4051	Proteinase-Activated Receptor 2	Santa Cruz
301	4052	Proteinase-Activated Receptor 3	Research Diagnostics
301	4052	Proteinase-Activated Receptor 3	Santa Cruz
305	4254	Rhodopsin	Biocarta
305	4254	Rhodopsin	DPC Biermann/Acris
311	4480	Somatostatin Receptor Type 1	Santa Cruz

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313	4481	Somatostatin Receptor Type 2	Biogenesis
313	4481	Somatostatin Receptor Type 2	Santa Cruz
315	4482	Somatostatin Receptor Type 3	Santa Cruz
317	4483	Somatostatin Receptor Type 4	Santa Cruz
319	4484	Somatostatin Receptor Type 5	Santa Cruz
321	4552	Tachykinin Receptor 1	Santa Cruz
323	4687	Thrombin Receptor	DPC Biermann/Acris
323	4687	Thrombin Receptor	Research Diagnostics
323	4687	Thrombin Receptor	Santa Cruz
325	4734	Thyrotropin Releasing Hormone Receptor	Santa Cruz
327	4944	Angiotensin II Type 1 Receptor	Alpha Diagnostic Int.
327	4944	Angiotensin II Type 1 Receptor	Biocarta
327	4944	Angiotensin II Type 1 Receptor	Biogenesis
327	4944	Angiotensin II Type 1 Receptor	Capralogics
327	4944	Angiotensin II Type 1 Receptor	Chemicon
327	4944	Angiotensin II Type 1 Receptor	DPC Biermann/Acris
327	4944	Angiotensin II Type 1 Receptor	Fitzgerald Industries Int.
327	4944	Angiotensin II Type 1 Receptor	Fitzgerald Industries Int.
327	4944	Angiotensin II Type 1 Receptor	Lab Vision Corporation/NeoMarkers
327	4944	Angiotensin II Type 1 Receptor	Santa Cruz
329	4946	Angiotensin II Type 2 Receptor	Alpha Diagnostic Int.
329	4946	Angiotensin II Type 2 Receptor	DPC Biermann/Acris
329	4946	Angiotensin II Type 2 Receptor	Santa Cruz
331	5072	Pyrimidinergic Receptor P2Y4	Chemicon
333	5117	Vasopressin V1A Receptor	Chemicon
335	5118	Vasopressin V1B Receptor	Alpha Diagnostic Int.
335	5118	Vasopressin V1B Receptor	Chemicon
337	5119	Vasopressin V2 Receptor	Alpha Diagnostic Int.
337	5119	Vasopressin V2 Receptor	Chemicon
337	5119	Vasopressin V2 Receptor	Research Diagnostics
347	6031	SIV/HIV Receptor BONZO	Santa Cruz
349	6204	Lysophosphatidic Acid Receptor Edg4	Exalpha Biologicals
351	6213	C-C Chemokine Receptor 5	Calbiochem
351	6213	C-C Chemokine Receptor 5	Capralogics
351	6213	C-C Chemokine Receptor 5	Chemicon
351	6213	C-C Chemokine Receptor 5	Research Diagnostics
351	6213	C-C Chemokine Receptor 5	Santa Cruz
361	6853	Purinergic Receptor P2Y11	Zymed

365	7221	Galanin Receptor GalR2	Alpha Diagnostic Int.
367	7246	Orexin Receptor 1	Alpha Diagnostic Int.
369	7247	Orexin Receptor 2	Alpha Diagnostic Int.
371	8436	Platelet-Activating Factor Receptor	Cayman
371	8436	Platelet-Activating Factor Receptor	Santa Cruz
377	9421	Neuropeptide Y Receptor Type 1	Biogenesis
377	9421	Neuropeptide Y Receptor Type 1	DPC Biermann/Acris
379	9834	Corticotropin releasing factor Receptor 1	Research Diagnostics
379	9834	Corticotropin releasing factor Receptor 1	Santa Cruz
385	14198	Interleukin-8 Receptor B	Biosource
385	14198	Interleukin-8 Receptor B	R&D Systems
385	14198	Interleukin-8 Receptor B	Research Diagnostics
385	14198	Interleukin-8 Receptor B	Santa Cruz
387	14641	Calcitonin Receptor	Santa Cruz
389	16041	C-C Chemokine Receptor 6	Research Diagnostics
389	16041	C-C Chemokine Receptor 6	Santa Cruz
391	16599	Smoothened	Research Diagnostics
391	16599	Smoothened	Santa Cruz
397	17535	Gaba(b) Receptor 1	Alpha Diagnostic Int.
397	17535	Gaba(b) Receptor 1	Calbiochem
397	17535	Gaba(b) Receptor 1	Chemicon
397	17535	Gaba(b) Receptor 1	Santa Cruz
423	37498	Xenotropic and Polytopic Retrovirus Receptor (XPR1)	Santa Cruz
435	54053	Gaba(b) Receptor 2	Alpha Diagnostic Int.
435	54053	Gaba(b) Receptor 2	Chemicon
439	56923	Muscarinic acetylcholine Receptor M3	Biogenesis
439	56923	Muscarinic acetylcholine Receptor M3	Santa Cruz
457	152201	Thyrotropin Receptor	DPC Biermann/Acris
457	152201	Thyrotropin Receptor	Santa Cruz
459	152245	C-C Chemokine Receptor 2	Research Diagnostics
459	152245	C-C Chemokine Receptor 2	Santa Cruz
461	152299	Interleukin-8 Receptor A	Biosource
462	152299	Interleukin-8 Receptor A	Biosource
461	152299	Interleukin-8 Receptor A	R&D Systems
462	152299	Interleukin-8 Receptor A	R&D Systems
461	152299	Interleukin-8 Receptor A	Research Diagnostics
462	152299	Interleukin-8 Receptor A	Research Diagnostics
461	152299	Interleukin-8 Receptor A	Santa Cruz
462	152299	Interleukin-8 Receptor A	Santa Cruz
468	159973	Vasoactive Intestinal Polypeptide Receptor 1	Exalpha Biologicals
470	160040	Vasoactive Intestinal Polypeptide Receptor 2	Exalpha Biologicals
472	160055	Motilin Receptor (GPR38)	Santa Cruz

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503	160228	T-Cell Death-Associated Gene 8 (GPR65)	Santa Cruz
507	160312	Sphingolipid Receptor Edg5	Exalpha Biologicals
515	160329	Proteinase-Activated Receptor 4	Santa Cruz
535	161214	Galanin Receptor GalR3	Alpha Diagnostic Int.
537	161221	Urotensin-II Receptor (GPR14)	Santa Cruz
546	177168	Cysteinyl Leukotriene CYSLT1 Receptor	Cayman
548	177191	Histamine H3 Receptor	Alpha Diagnostic Int.
548	177191	Histamine H3 Receptor	Chemicon
552	180956	Lysophosphatidic Acid Receptor Edg7	Exalpha Biologicals
562	189900	Sphingolipid Receptor Edg8	Exalpha Biologicals
628	190774	Histamine H4 Receptor	Alpha Diagnostic Int.
628	190774	Histamine H4 Receptor	Chemicon
636	190955	Leukotriene B4 Receptor BLT1	Cayman

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANTIGENIC PEPTIDES, SUCH AS FOR G PROTEIN-COUPLED RECEPTORS (GPCRS), ANTIBODIES THERETO, AND SYSTEMS FOR IDENTIFYING SUCH ANTIGENIC PEPTIDES

(57) Abstract: The present invention provides antigenic peptides for GPCRs and antibodies relating thereto, and related systems, methods, compositions, and the like, such as diagnostics and medicaments. Where antibodies against a given GPCR are not known, the present invention provides such antibodies, and preferred antigenic sequences for producing such antibodies. Where antibodies against a given GPCR are known, the present invention provides preferred antigenic peptides for producing antibodies that exhibit improved specificity, affinity or capacity to perform antibody-related actions relative to the known antibodies.

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INTERNATIONAL SEARCH REPORT

Int'l Application No

PC 7/US 01/50107

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/705 C07K16/28 G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, SEQUENCE SEARCH, EPO-Internal, WPI Data, BIOSIS, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHOU FENG C ET AL: "Production and characterization of an anti-serotonin 1A receptor antibody which detects functional 5-HT1A binding sites." MOLECULAR BRAIN RESEARCH, vol. 69, no. 2, 8 June 1999 (1999-06-08), pages 186-201, XP002222431 ISSN: 0169-328X figure 1; table 1 --- -/--	1-10, 15-26



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/50107

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>RAYMOND JOHN R ET AL: "Immunohistochemical mapping of cellular and subcellular distribution of 5-HT-1A receptors in rat and human kidneys." AMERICAN JOURNAL OF PHYSIOLOGY, vol. 264, no. 1 PART 2, 1993, pages F9-F19, XP001127496 ISSN: 0002-9513 the whole document, in particular figures 1, 3</p> <p>---</p>	1-10, 15-26
Y	<p>VERDOT L ET AL: "PRODUCTION OF ANTI-PEPTIDE ANTIBODIES DIRECTED AGAINST THE FIRST AND THE SECOND EXTRACELLULAR LOOP OF THE HUMAN SEROTONIN 5-HT1A RECEPTOR" BIOCHIMIE, MASSON, PARIS, FR, vol. 76, no. 1, 1994, pages 165-170, XP008009332 ISSN: 0300-9084 the whole document</p> <p>---</p>	1-10, 15-26
Y	<p>TODD E ANTHONY AND EFRAIAN C AZMITIA: "Molecular characterization of antipeptide antibodies against the 5-HT1A receptor: Evidence for state-dependent antibody binding." MOLECULAR BRAIN RESEARCH, vol. 50, no. 1-2, 15 October 1997 (1997-10-15), pages 277-284, XP002222432 ISSN: 0169-328X the whole document</p> <p>---</p>	1-10, 15-26
A	<p>ECKARD C P ET AL: "CHARACTERISATION OF G-PROTEIN-COUPLED RECEPTORS BY ANTIBODIES" CURRENT MEDICINAL CHEMISTRY, BENTHAM SCIENCE PUBLISHERS BV, BE, vol. 7, no. 9, September 2000 (2000-09), pages 897-910, XP000984970 ISSN: 0929-8673 the whole document</p> <p>---</p>	1-10, 15-26
A	<p>BACKSTROM JON R ET AL: "Generation of anti-peptide antibodies against serotonin 5-HT2A and 5-HT2C receptors." JOURNAL OF NEUROSCIENCE METHODS, vol. 77, no. 1, 7 November 1997 (1997-11-07), pages 109-117, XP002222433 ISSN: 0165-0270 the whole document</p> <p>---</p>	1-10, 15-26

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/50107

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EASON MARGARET G ET AL: "Identification of a G-s coupling domain in the amino terminus of the third intracellular loop of the alpha-2A-adrenergic receptor: Evidence for distinct structural determinants that confer G-s versus G-i coupling." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 270, no. 42, 1995, pages 24753-24760, XP002222434 ISSN: 0021-9258 the whole document -----</p>	<p>1-10, 15-26</p>

INTERNATIONAL SEARCH REPORT

national application No.
PCT/US 01/50107

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 19 and 20 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-10, 15-26 (all partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-10, 15-26, all partially

an isolated antigenic peptide having the amino acid sequence
SEQ ID NO: 692, nucleic acids encoding said peptide,
antibodies directed against said peptide, kits containing
said antibodies

Inventions 2 to 1600: claims 1-26,
all partially and in so far as applicable

each separate, individual invention relates to an isolated
antigenic peptide, nucleic acids encoding said peptide,
antibodies directed against said peptide, kits containing
said antibodies,
wherein invention 2 is represented by the peptide having the
amino acid sequence SEQ ID NO: 693,
invention 3 is represented by the peptide having the amino
acid sequence SEQ ID NO: 694,
continuing to invention 1600, which is represented by the
peptide having the amino acid sequence SEQ ID NO: 2292

Invention 1601: claims 27-66

a method of identifying an amino acid sequence of an
antigenic peptide derived from a candidate polypeptide,
peptides identified by that method, antibodies directed
against said peptides

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